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Agri-News

January 4, 1999

6666 horse program, learn from success

At the 6666 Ranch in Guthrie, Texas, Dr. Glenn Blodgett DVM, director of the horse division, is responsible for overseeing the breeding, development and marketing of 600 head of horses. It's a big job, and Blodgett has the experience and knowledge to accomplish the task.

"We're very fortunate to have Dr. Blodgett on the agenda for the 1999 Alberta Horse Breeders and Owners Conference," says Les Burwash, head of equine programs with Alberta Agriculture, Food and Rural Development, Airdrie. "As well as his position at the Four Sixes, he's a current director of the American Quarter Horse Association and the American Association of Equine Practitioners and is on the advisory committee of Colorado State University's Equine Science program."

Blodgett is also a member of the Ranching Heritage Association and served on the Quality Assurance Committee of the Association of Racing Commissioners. He is actively involved in the equine industry and shares his innovative ideas and experience to organizations and at conferences.

"The topic Blodgett has chosen for his presentation at the conference is Texas Ranch Horse Program," adds Burwash. "He is an entertaining speaker, but more importantly, he is a very knowledgeable horseman who is willing to share his experience and know-how. Albertans setting up horse breeding and marketing operations and those with already established operations, will no doubt get a lot from his presentation. There's no better way to learn, than by benefiting from first-hand experience."

Each year in Alberta, the horse industry section of Alberta Agriculture organizes the Alberta Horse Breeders and Owners Conference. The event is the premier horse conference in North America and one that Alberta's horse enthusiasts look forward to. The 1999 conference is being held on **January 8, 9 and 10, 1999** at the Capri Centre in Red Deer.

"The 1999 conference features 14 internationally recognized speakers," says Burwash. "The organizing committee has put together an excellent program of speakers and presenters again this year. Topics such as new equine nutrition and research, pre-purchase exams, trailer safety, and the value of a versatile horse are also included in the agenda."

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Alberta
AGRICULTURE, FOOD AND RURAL DEVELOPMENT

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IT

The conference is arranged so that attendees can follow four streams of interest – Arabian, Quarter Horse, Thoroughbred and all breeds. While many follow the program designed for a particular breed preference, conference participants can attend any of the sessions and will receive the printed materials from all sessions.

Conference registration is $75 per person. For more information about the 1999 conference, contact Burwash in Airdrie at (403)948-8538. Government numbers are toll-free by dialing 310-0000 to connect to a RITE line.

Contact: *Les Burwash*
(403) 948-8538

Taste of Success '99 takes off

Taste of Success is ready to take rural food processing applicants for the newly redesigned 1999 program.

"We've made it more flexible and better able to meet participant needs," says Kerry Engel, rural development specialist-business with Albrrta Agriculture, Food and Rural DEvelopment, Westlock and one of the Taste of Success program's co-chairs.

This is the second year the Alberta Agriculture, Food and Rural Development program has been provincial. The one of a kind program started out as a northwest regional project.

"What we've seen in the past are businesses at different stages, so we've put together a core program and then options for participants to pursue if that's what their product and business needs are," says co-chair Karen Goad, Alberta Agriculture agri-food development specialist based in Grande Prairie.

The core Taste of Success program consists of a product assessment and business plan review plus a one-day workshop in April. Participants pay a $50 fee to take part. Additional fees will apply for other options – a consumer opinion survey, market assessment and education.

As well, products that meet criteria such as Canadian Food Inspection Agency labeling regulations and food safety/handling standards will be invited to take part in Taste of Success product showcases in the fall.

"Taste of Success is specifically geared to rural processors with volume sales under $25,000," notes Engel. "These processors are some of the value-added businesses that will be required for the agri-industry to reach its goal of a $20 billion sector by 2005. Taste of Success helps them develop both their product and their overall business."

"We're helping small processors take the next step, whether it's scaling up production, designing a label or focussing on their target market," says Goad. "As well, past participants have told us being able to network with other processors has been a beneficial part of Taste of Success."

Besides having volume sales under $25,000, Taste of Success applicants must be producing a human food product in a public health certified kitchen.

The application deadline for Taste of Success 1999 is **March 1**. Interested processors can contact their nearest rural development specialist-business or agri-food development specialist for an appointment [a list follows].

Contact: *Kerry Engel* *(403) 349-4465*
Karen Goad *(403) 538-5629*

Taste of Success contacts:

Rural Development Specialists – Business
Kerry Engel, Westlock, 349-4465
Lori-Jo Graham, Claresholm, 625-1445
Linda Hawk, Hanna, 854-5500
Sharon Homeniuk, Stony Plain, 963-6101
Tim Keating, Falher, 837-2211
Morley Kjargaard, St. Paul, 645-6301
Kathy Lowther or Donna Fleury, Airdrie, 948-8537
Janice McGregor, Morinville, 939-4352
Leona Reynolds-Zayak, Vermilion, 853-8101
Vacant (until April 1999), Medicine Hat, 529-3616
Lynn Stegman, Lacombe, 782-3301
Jan Warren, Vulcan, 485-2236
Marian Williams, Camrose, 679-1210

Agri-Food Development Specialists
Karen Goad, Grande Prairie, 538-5629
Karen Hoover, Lethbridge, 381-5130
Joyce Lencucha, Red Deer, 340-5358
Suzanne Tenold, Airdrie, 948-8504

Business Development Unit
Jean Wilson, Edmonton, 415-2146

All numbers are toll-free by dialing 310-0000 and then the individual's number.
E-mail them at: firstname.lastname@agric.gov.ab.ca
Example: kerry.engel@agric.gov.ab.ca

Olds College offers soil & weed internet courses

Olds College is offering several courses via the internet for farmers, ranchers and agribusinesses.

In partnership with Agri-Ville, Your Online Farm Community and the Canada-Alberta Farm Business Management Program (FBMP), Olds College is offering **Introduction to Soils, Weeds and Weed Management** and **Soil Fertility** courses through the internet. Courses start January 18, 1999, February 1, 1999 and March 1, 1999. Course demos and registration information is available by contacting Olds College, Learning Enhancement Services at (403)556-4684 and online

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at **http://www.agri-ville.com/schoolhouse/index.htm**

"The convenience of taking courses from home with instructor and peer support and the networking opportunity with Agri-Ville Coffee Shop chats and Meeting Rooms support the online learning experience," says Anita Lunden, FBMP provincial coordinator. "Course instructors are trained to support the students using interactive tools and resources through the Olds College Classroom in the Agri-Ville School House. Students also have access to 1-800 support number for technical support."

The courses run for six weeks each starting January 18, 1999 and the introductory fee of $150.00 includes course instruction, 1-800 support and examinations.

For more information call Anita Lunden (403) 556-4278 or Chuck Howard at 1-800-661-6537 or (403) 556-8265.

"Agri-Ville is excited to work with Olds College to offer practical, and convenient online learning from home," says Delin Sheehan-Millang, Agri-Ville project manager for Agri-Web Services. "These courses are for busy people in the agricultural sector who don't have the time to attend classes at school. With the Internet, the bricks and mortar are no longer necessary. These courses are an excellent technical update or can be taken for general interest."

Agri-Ville is an online community of farmers, ranchers and agribusiness specialists who discuss and learn the latest in farm management issues and solutions. Discussion occurs in the Coffee Shop and Meeting Rooms. The School House offers online learning opportunities. Agri-Ville is funded by the Canada-Alberta Farm Business Management Program. Membership grows daily as producers realize the benefits of Agri-Ville. Access Agri-Ville free of charge on the World Wide Web at **www.agri-ville.com**

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1999 Quebec/Alberta student employment exchange

The Québec/Alberta Student Employment Exchange Program is a yearly program to help post-secondary students gain work experience, improve their second official language skills and at the same time interact with Canadians from another part of the country. The program is also beneficial for government departments needing temporary staff for the coming summer and have a project that students would be able to work through.

"This temporary work exchange program places post-secondary students from Québec and Alberta within a variety of provincial governmental departments for 13 weeks from mid-May to mid-August," says Rose Ferronato, Quebec/Alberta Student Employment Exchange program coordinator, with Alberta Advanced Education and Career Development, Edmonton. "Students work on career-related projects for the duration of the program."

Interested government department managers submit application forms to the human resources office of their department. From those applications, a list of possible summer placements is drafted. Last year, approximately 60 applications were received and 22 positions filled. A similar number is expected this year. Likewise, the Quebec provincial government departments compile their own list and 22 students from Alberta will be matched to the positions available.

"This mutually beneficial program is an excellent opportunity for post-secondary students," says Ferronato. "Alberta students who would like to participate may find themselves spending their summer working for the Québec provincial government and improving their French language skills."

Deadline for students' applications is **January 18, 1999**. The hourly wage is $8.00 for a 35-hour work week and return air transportation to Québec is included. Students with beginner to advanced French language skills are accepted. Besides gaining valuable work experience related to their field of studies, students have an opportunity to directly experience the culture of "*la belle province*" and participate in a few cultural activities organized for them. Students should contact their campus career placement office or Rose Ferronato, the program coordinator at 427-5538, for an application form.

Earning, learning and experiencing another part of Canada, could be a great way to start the summer of 1999!

Contact: Rose Ferronato
(403) 427-5538

Farm Safety and Farm Fires

Farm fires are a hazzard at any time of the year, but even more so during winter months. Isolated locations of farms, fires in farm equipment, burn injuries during fueling and welding jobs and a shortage of water supply are some of the obstacles rescue crews are faced with everyday in rural Alberta.

There are approximately 60,000 farms in Alberta. On average, every day there are four reported injuries requiring medical attention on Alberta farms. Fatality statistics are grim – 15 to 18 farm deaths per year.

"There is not a single month where a farm resident is not killed," says Solomon Kyeremanteng, manager of the farm safety program, Alberta Agriculture, Food and Rural Development, Edmonton. "Fire losses on Alberta farms account for many of the farm deaths over the last 10 years."

During the 10-year period 1988 to 1997, there were 6.166 fires reported on Alberta farms. These fires caused 24 deaths, 108 injuries and $94 million in property damage. The annual numbers of farm fires have declined steadily from a high of 1,084 in 1988 to 325 in 1997. However, property losses remain around the average in most years except 1993 ($5.4 million) and 1996 ($6.6 million). Both fire deaths and injuries have fluctuated with no clear trend.

Data reveals that approximately 93 per cent of farm fires occur on non-residential properties such as tractors and machinery, crops/orchards/straw/bales, barns, sheds, trash and general trucks with non-flammable cargo. However, most farm fire deaths (73 per cent), injuries (26 per cent) and property losses (26 per cent) occur from fires in farm homes.

The following table is re-printed with permission from the November 1998 issue of Alberta Fire News, a publication of Alberta Labour. The statistical information contained within this table is based on reported farm fires from 1988 to 1998.

Alberta Agriculture has been communicating farm safety through radio, television and print to try and get the message of accident and fire prevention out to farmers.

"Communicating farm safety messages in a positive way seems to have the best results," adds Kyeremanteng. "Positive communication is the basis of the safety campaign developed and communicated over the past 18 months: A Safe Farm is a Great Place to Grow. The idea behind the slogan is that if a farm is safe; crops, business and children can all grow."

"This winter, and all year long, remember to take a few extra minutes and complete the work safely," says Kyeremanteng. "Fire can have devastating effects - be extra careful around the farm and around the house."

Contact: *Solomon Kyeremanteng*
(403) 427-4227

Fire Losses on Farms in Alberta by Property Classes: 1988 - 1998:

Property Class	**Fires**	**%**	**Deaths**	**Injuries**	**Property Loss $**
Farm tractor/equip./grain dryer/harvest	880	14	0	6	7,799,454
Crops/orchards/straw stacks/bales	642	10	1	11	2,329,049
Animal barn (cattle/pigs/horses, etc.)	602	10	2	12	19,958,232
Barn storage (feed/vehicle)	548	9	2	7	10,441,249
Brush/grass/light ground cover/open land	497	8	0	8	139,469
One and two family dwellings	420	7	16	25	20,992,390
Shed (incl. implement shed)	355	6	0	1	2,319,779
Farm facility – unclass	281	5	0	3	4,213,184
Trash/rubbish (incl. containers)	230	4	0	5	1,753
General truck (non-flam. cargo)	203	3	1	1	1,502,891
Vacant/condemned property – w/o contents	134	2	0	0	298,952
Poultry, egg production facility	130	2	0	2	2,040,763
Machinery mfg.	121	2	0	5	5,317,775
Individual auto parking garage	117	2	0	3	1,759,426
Agri product bulk storage	87	1	0	0	804,997
Fences/poles/railroad ties	87	1	0	0	88,067
Water supply system/pump house	85	1	0	4	358,583
Outdoor property – unclass	70	1	0	0	67,338
All other 659	11	2	10		13,641,111
Total	**6,166**	**100**	**24**	**108**	**94,074,462**

How's the water?

The management of riparian areas (the land bordering creeks, springs, and other wetlands) receives considerable attention in the media and from Alberta landowners. The issues involved in managing these areas aren't limited to water quality; they include wildlife and fisheries conservation, spring and storm runoff dynamics, irrigation, livestock watering, grazing management and a variety of industrial needs.

Riparian areas account for only about two per cent of Alberta's land base. With all the uses dependent on the proper management of these small areas, it's no wonder that some landowners may think that owning property with a creek or slough is more of a liability than a benefit.

"Riparian areas require unique management approaches," says Frank Gazdag, range management specialist with Alberta Agriculture, Food and Rural Development, Rocky Mountain House. "A properly managed riparian area can produce up to four times the amount of forage as regular pasture land. Healthy riparian areas can purify water of soil sediment, soluble nutrients, such as nitrogen and phosphorous, and many agricultural chemicals. Riparian habitats support a wider variety of plant and animal life than any other region in Alberta and, because they contain some of the last remnants of native vegetation within the Parkland region, they also serve as important wildlife corridors."

To address the challenges of how to manage riparian areas both for economic production and to safeguard wildlife habitat, the Alberta Fish and Game Association and the Earthkeeping Agricultural Society are delivering a series of Farm Conservation Planning workshops. These one-day workshops will address a variety of farm management issues including range management, livestock watering systems and wildlife habitat enhancements.

"Participants will be able to develop a custom farm conservation plan with the assistance of local agrology and wildlife technologists," says workshop organizer, Andrew Schoepf.

The 1999 workshop schedule is as follows:

Date	Location and Watershed focus
January 07	Sunnybrook Hall, Sunnybrook – Strawberry Creek
January 11	Ponoka Fish and Game Clubhouse, Ponoka – Battle River
January 15	Burbank Park, Blackfalds – Blindman River
January 21	Leduc Fish and Game Clubhouse, Leduc – Whitemud & Blackmud Creeks
January 26	Camrose Regional Exhibition (CRE), Camrose – Camrose Creek

Registration fee for the workshop is $35 and includes lunch, recent and historical air photos of participant's land, detailed satellite maps and a comprehensive technical resource binder.

For further information, or to register, contact Schoepf at (403)488-9698.

Contact:	*Frank Gazdag* *(403) 845-8240*	*Andrew Schoepf* *(403) 488-9698*

Agri-News Briefs

Alberta Farm Fuel Benefit (AFFB)

The deadline for Alberta Farm Fuel Renewal applications has passed. However, Alberta Agriculture, Food and Rural Development will be processing applications into the New Year. Bulk dealers will be accepting all farm fuel registration numbers that are currently valid until this renewal process is completed. Eligible producers should **not** worry about their status at this point, and should continue to purchase marked fuel under their old registration number until notified otherwise by Alberta Agriculture. The sooner renewal applications are received by Alberta Agriculture, the sooner they can be processed. Please return the forms as quickly as possible. Farmers who have not received a renewal application form should contact an Alberta Farm Fuel Benefit Clerk by dialling 310-0000, followed by 422-9167.

Happy New Year

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Agri-News

January 11, 1999

Saving electricity with efficient lighting

Good lighting is important in livestock barns for two reasons, enough light is required to make a barn a safe place to work and good light is essential for animal productivity.

"Bright light 14 to 16 hours per day in a swine breeding barn is recommended to maintain estrous cycles during short winter days," says Robert Borg, P.Eng., agricultural engineer with Alberta Agriculture, Food and Rural Development, Red Deer. "It can benefit producers to compare the energy efficiency of long-life incandescent lamps to fluorescent fixtures and choose the system that most closely fits their needs."

A swine farrowing room, 23 feet by x 30 feet, with eight farrowing pens requires a light level of 10-foot candles at pig level for eight hours per day. Mean lumens, is the light output of the lamp when it reaches 40 per cent of its life. One-foot candle is one lumen per square foot.

Light output of long-life incandescent lamps (5000 hours until 50 per cent of the bulbs fail compared to 1000 hours for regular lamps) is 2280 mean lumens for a 150 Watt lamp. The brightness of lamps falls off with age. The light output of fluorescent 32 Watt, T8 fixtures (tubular fixture 8/8 inches in diameter) is 2800 mean lumens per lamp. The life expectancy of the 32W T8 fluorescent lamps (2 - 4' lamps per fixture) is 24,000 hours. The comparison between the two lamps in terms of energy efficiency is 12.4 lumens per Watt for the 150W incandescent and 70.2 lumens per Watt for the 32W fluorescent lamps, including ballasts.

"Assuming that the distance from the fixture to the workplane or pig level is eight feet and the walls and ceiling are painted white, to obtain 10-foot candles with 150 W incandescent lamps requires 10 fixtures for this 23 foot by 30 foot room," says Borg. "To get 10-foot candles with 32W T8 fluorescent fixtures requires 4 fixtures (two lamps per fixture). A new Canada Plan Service leaflet is coming out soon with a worksheet to calculate light levels using a simplified zonal cavity method of light level calculation."

Energy comparison can made by calculating the yearly electrical bill. If electricity is $.05 per kilowatt hour ($.05/kW-hr), the energy per year for incandescent lamps is calculated as:

Energy cost for incandescent lamps = 10 lamps x 150 W/ lamps x 8 hours/day x 365 days/year x $ .05/ kW-hour/1000 = $219/year.

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Energy cost for fluorescent lamps = 4 fixtures x 2 lamps/ fixture x 32.5 W/lamp x 8 hours/ day x 365 days/year x $ .05/ kW-hour/1000 = $39/year (includes one 6W ballast/2 fixtures).

"The cost of a 32 Watt T8 weather proof fixture is about $100" adds Borg. "An additional energy saving feature is that one electronic ballast can be installed to control two fixtures as long as they are within a 16 ft spacing."

Typical light levels required for barns range from half-foot candle for chicken broiler housing to five-foot candles for general livestock housing, 10- to 15-foot candles for swine breeding and farrowing, 50-foot candles for tasks requiring inspection such as cow's udders in milking parlours, and 100-foot candle in farm offices.

Contact: *Robert Borg*
(403) 340-5323

Going Global

Alberta exports about 65 to 70 per cent of everything it produces and export markets are expanding. This export focus means that Alberta industries have to be aware of changes in the world market that could help or interfere with being able to reach full export potential.

"Alberta Agriculture, Food and Rural Development's Multi-Media branch is now selling video tapes of Going Global conference sessions," says Ken Blackley, information officer with Alberta Agriculture, Edmonton. "The recent Going Global conference in Red Deer attracted a lot of attention. Anyone who missed the conference and would like to view the presentations or anyone who would like to review some of the sessions, now can."

In 1997, Canadian agri-food exports reached $22.3 billion, slightly more than three per cent of world trade. The goal is to double this amount and reach $40 billion in exports by the year 2005. To get there, Canada's agri-food sector needs to be more globally competitive and increase industry's access to world markets.

"At the Going Global conference, delegates heard how the 1999 round of World Trade Organization (WTO) negotiations will likely impact their ability to compete in the international marketplace," adds Ron Brown, head of multi-media, Alberta Agriculture, Edmonton. "The international trade experts and officials who spoke at the conference are some of world trade's most influential people. A complete list of speakers and presentation titles is available from the multi-media branch."

The Going Global conference was sponsored by the Agri-Industry Trade Group (AITG), a coalition of over 60 businesses and industry organizations dedicated to improving Canada's trade position in the upcoming 1999 WTO negotiations.

Going Global sessions are available for purchase as individual videos or as a nine-video package:

Video 1
Gearing up for Going Global – Hon. Ed Stelmach, Minister of Alberta Agriculture, Food and Rural Development
$20 (plus GST)

Video 2
AITG Perspectives, Responding to your needs
$20 (plus GST)

Video 3
The WTO, an overview – His Excellency Nestor Osario – Columbia Ambassador to WTO, Chair – WTO Agriculture Committee
$35 (plus GST)

Video 4
World Perspectives on the Future of Trade, includes question-and-answer session.
$75 (plus GST)

Video 5
Where to from Here, includes question-and-answer session.
$50 (plus GST)

Video 6
WTO Impacts on Canadian Agriculture, includes question-and-answer session
$25 (plus GST)

Video 7
What in the World is Happening – Diane Francis, editor, Financial Post, includes question-and-answer session
$40 (plus GST)

Video 8
Preparing Canadian Industries for Going Global, includes question-and-answer session
$50 (plus GST)

Video 9
When the Rubber Hits the Road – Realities of WTO Negotiating Process, includes question-and-answer session
$60 (plus GST)

Video 10
Going Global Conference Package (all 9 videos – 9 hours)
$295 (plus GST)

Mail orders should be sent to: Communications Division, Alberta Agriculture, Food and Rural Development, 100A, 7000 - 113 Street, Edmonton, AB T6H 5T6. Please include $5 (plus GST) per order for shipping and handling. Only prepaid orders can be accepted. Cheque, money order, VISA and MasterCard are accepted. Orders are filled within 10 days of receipt of payment.

Contact: *Ron Brown*
(780) 422-3925

Price it right!

The food marketplace is exploding with wonderful food products and creative businesses throughout the province. Alberta companies anticipate seeing their products in many major food stores and specialty shops both here and abroad. However, there are many important hurdles that have to be cleared before the product gets on the shelf.

"One of the most difficult steps for food businesses is making contact with principle buyers of major food distributors," says Joyce Lencucha, agri-food development specialist with Alberta Agriculture, Food and Rural Development, Airdrie. "Unfortunately, they may not share the same enthusiasm for the product. There are many factors that must be understood by food processing entrepreneurs in order to make a successful product presentation to a buyer, broker or distributor. First and foremost, it is essential to have an understanding of the buyers world, what challenges they face and what things are needed to make adding a new food product into their inventory as easy and uncomplicated as possible."

In January 1999, Alberta Agriculture, Food & Rural Development begins offering one-day workshops in various locations around the province aimed at food companies ready to take their food products to market. Topics covered in the **Price It Right** workshops include:

- how to set the wholesale price to include direct and indirect costs needed to put the product on the shelf
- what the retail buyer is looking for when the company comes in to present the product
- the importance of marketing research in positioning the food product
- what it takes to get a listing with a distributor

"Working through the process of retail pricing made me realize how essential this information is to my business planning process," says Shirley Alton, Prairie Orchards, Ardrossan. "An understanding of retail pricing is crucial and needs to be one of the first steps in planning. The decision of whether you have a profitable product and which market you aim to sell it to is derived from this knowledge. The pricing format learned at the seminar was easy to follow and can be applied to any marketing you attempt."

The presenter, Wally Marcolin, has had over 20 years of retail and wholesale experience and has extensive knowledge of both business and sales strategies suited to marketing any food product.

"Wally Marcolin, with his great sense of humour, can help you set the right price so that you are able to get your product listing while still maximizing your profits," adds Kent Rupert, MacKay's Cochrane Ice Cream.

For information about the workshop nearest to you, contact Peggy Marce, at Alberta Agriculture's agri-food development branch in Edmonton, (780) 422-2592 or the Agri-Food Development Specialist in your area:
Joyce Lencucha – Red Deer office at (403) 340-5358;
Suzanne Tenold – Airdrie District office at (403) 948-8504;
Karen Goad – Grande Prairie office at (780) 538-5285; or
Karen Hoover – Lethbridge office at (403) 381-5130.
Alberta government numbers are toll free by dialing 310-0000 first.

Contact:	*Joyce Lencucha*	*Suzanne Tenold*
	(403) 340-5358	*(403) 948-8504*
	Karen Goad	*Karen Hoover*
	(780) 538-5285	*(403) 381-5130*
	Peggy Marce	
	(780) 422-2592	

Buying the right bull to improve the herd

During the next few months, ranchers will be out assessing the bull markets and trying to define their needs for the up and coming breeding season.

"Potential buyers go through the process of visiting farms and test stations, considering factors such as feeding, conditioning and the breeding programs of seedstock producers," says Bill Grabowsky, beef specialist with Alberta Agriculture, Food and Rural Development, Wetaskiwin. "Buyers will be asking questions concerning birth weights, weaning weights, gains, rations and bloodlines of these potential herd sires. They might even want to see the sire and dams of these herd-sires to assess conformation, temperament and stature. Prices, guarantees and deliveries are usually also discussed. It's only after several visits that buyers have a pretty good feel for what's available."

Some ranchers do a better job of selecting bulls or breeds of bulls than others. Having a clear, defined, goal of what is being selecting for or what is being worked towards is a definite benefit when selecting bulls. Trying to meet the demands of the feedlot industry as well as trying to meet the demands of the ranch's own goals of producing efficient females can be a tall order. Having a "systems approach" to defining these goals helps lay out a plan of action and acquisition. For instance, if pasture feed supplies are short due to climate and/or unproductive soils, a producer might select a bull breed to supply females that can grow, breed and calf-out under those set of circumstances. This bull should or could also supply feeder calves that would grow out and fatten according to the demands of the packing industry.

Cont'd on page 4

"Commercial ranches are trying to produce a desirable product as efficiently as possible," adds Grabowsky. "The purebred breeder's goal should be to know the goals and try to meet the expectations. In the next several months, both breeders and potential buyers should discuss their goals and hopefully each will achieve some measure of satisfaction."

Selecting for highly heritable traits, like growth traits, is still very important just like birth weight, reproductive soundness and conformation. The key is balancing this out with the ranch's "systems approach" goals.

Plan now and know where your breeding program is going. If it needs to change, there's still time to start this year.

Contact: Bill Grabowsky
(780) 361-1240

Fertilizing container-grown trees and shrubs

There are two main production methods for growing trees and shrubs in Alberta: field production and container production. Container-grown plants are sold in garden centres and to landscape contractors and others for direct planting into the landscape. Container-grown plants have highly managed media, fertility and irrigation regimes; require a smaller land base; and have an extended planting season when compared to field-grown plants.

"Trees and shrubs grown in containers require very different fertilizer management than those grown in the field," says Dr. Christine Murray, nursery crops specialist with Alberta Agriculture, Food and Rural Development's Crop Diversification Centre South, Brooks. "In containers, plants are grown in a soilless or a low soil medium. These media require higher levels of irrigation to maintain container moisture than field-grown plants need."

Injection of water soluble fertilizers into the irrigation system used to be considered the industry standard method of fertilization. This method has been mostly replaced by the use of controlled-release fertilizers. These fertilizers are in a coated pellet form and release nutrients in response to increasing temperatures as the summer progresses.

"Applying fertilizer directly to the container, rather than applying it through the irrigation system, is more efficient and environmentally sustainable," says Murray. "The injection of fertilizer into the irrigation system was often wasteful as large amounts fertilizer never reached the container.

"Commercially available controlled-release fertilizers were developed in large nursery crop regions with climatic conditions that differed greatly from Alberta. To be able to use the commercially available products and effectively provide nutrients to container-grown plants these fertilizers were adapted to Alberta conditions and requirements."

In May 1996, a two-year project was initiated to evaluate the effect of low, medium and high nitrogen (N) rates and four combinations of controlled-release fertilizers on four shrub species (Coronation Triumph potentilla, dwarf Korean lilac, savin juniper and alpine currant).

Two commercially available fertilizers formulated to release their nutrients in either three to four months or eight to nine months were used. To better understand the nutrient release pattern under Alberta conditions, the fertilizers were applied to each of the four species at 100 per cent and 0 per cent, three to four month; and 100 per cent and 0 per cent, eight to nine month, respectively, or in combinations of 40 per cent plus 60 per cent and 60 per cent plus 40 per cent of three to four and eight to nine month fertilizer. The container medium was analyzed and plant growth was measured monthly in the summer season to monitor the nutrient availability and to assess how it affected the growth of the shrubs.

There was a greater release of N in May, June and early July of 1996 in fertilizer treatments that contained 40, 60 or 100 per cent, three to four month fertilizer. The greater N availability early in the growing season as well as the high N rate was associated with the greatest growth in the first season for all species. In the second season, only alpine currant had greater growth when grown with 40, 60 or 100 per cent, three to four month fertilizer. Carry over of unreleased fertilizer from the first season that was subsequently released, increased nutrient availability but reduced the effect of fertilizer treatments in the second season.

"Leaching of fertilizer nutrients, especially nitrogen and phosphorus can contribute to excess nutrients in the soil and waterways," adds Murray. "In the water soluble fertilizer control treatment, loss of nutrients occured due to leaching from the container and from fertilized irrigation water that did not contact the containers. The testing showed that there was a greater loss of nutrients from the control treatment than from the controlled-release fertilizer treatments, which lost nutrients only from container runoff."

The research indicates growers could use a combination of three to four and eight to nine month fertilizers for effective nutrient management of container-grown crops. As well, the use of controlled-release fertilizers results in more efficient fertilization with less nutrient leaching.

Contact: Dr. Christine Murray
(403) 362-1313

Agri-News Briefs

Triticale as a Silage Crop

Elston Solberg, Ross McKenzie, with Alberta Agriculture Food and Rural Development's plant industry division, agronomy unit, and George Clayton, Agriculture and Agri-Food Canada in partnership with Progressive Seeds have completed the first year of a study on the use of triticale as a silage crop on manured land. Combined with previous work by Agronomy and Cereal and Oilseeds, the results show that triticale has tremendous potential as a silage crop. Potential benefits include high yields, break in the disease cycle from continuous barley, longer harvest window and good drought tolerance. Solberg and McKenzie will be working with Progressive Seeds this winter to distribute their initial findings and plan next year's research. For further information, contact Solberg at (780) 422-1222 , McKenzie at (403) 381-5842 or Clayton at (403) 782-8123.

Consumerism today

The 1999 Western Regional Conference of the Canadian Council of Grocery Distributors (CCGD) is being held on January 28 and 29, 1999 at the Metropolitan Centre, Calgary. The theme, ***Click On ... Click Off – Consumerism Today*** sets the tone as speakers at the conference delve into subjects such as: What makes consumers 'click'; Virtual shopping; and, Security in an electronic world. Albertans involved in the grocery distribution industry will have the opportunity to listen to speakers: Scott Clark, Microsoft Corporation; Bill Dover, Dover Hospitality Consulting, Inc.; Kim Greenizan, Computing Devices Canada; and, Tim Olafson, Angus Reid Group. Conference registration is $205 if registered before January 15, 1999 and $235 after that date. For more information, contact Bryan Walton, vice-president western region CCGD, (403) 250-6608 or e-mail: **bwalton@ccgd.ca**

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Agri-News

January 18, 1999

Alberta continues to position itself in China

– its third largest agri-food market

China, ever complex, ever mysterious, continues to baffle and excite existing and potential exporters. With 1.3 billion people, 20 per cent of the world's population, China is expected to become the world's largest economy by 2007, according to the International Monetary Fund (IMF).

Even with the Asian monetary crisis, this vast market – with a growing middle class of people who have many westernized tastes and demands – offers enormous potential for the agriculture industry. The present currency crisis in Asia has not significantly impacted the Chinese economy and their currency the renminbi (Rmb) remains stable. However China's exports have declined causing its GDP growth rate to be lower than previous years (7.8 per cent – December 1998).

Contrary to some opinions that China may not be a big importer, Alberta Agriculture, Food and Rural Development, consider the country a priority market for agriculture/food products and services, but within a medium to long term context. The province is not the only one to step up market promotion activities. The United States, the European Union, Australia, New Zealand, other Canadian provinces and Asian countries also have increased their presence in China.

"Conducting business in Asia is very different from North American standards," according to Ed Stelmach, Alberta's Agriculture Minister. "Developing strong, consistent, relationships for successful market penetration, is as important as product, price, supply and demand."

Alberta is no stranger in China. Competing with other exporters around the world means capitalizing on every competitive edge. Since 1980, Alberta has been twinned with the province of Heilongjiang in China and for the past 18 years has worked with them on beef and pasture projects. These are considered building blocks to expanding business in China.

Alberta has also aggressively pursued and developed business relationships and sales in provinces outside of Heilongjiang, and developing key contacts with the national agencies/ ministries and provinces has paid off. Reports Stelmach, "Alberta exports of wheat, barley and value-added products to China totalled $151 million in 1997." Alberta has already exported $104 million of agriculture and agri-food products to China from January to September 1998.

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Additionally, Alberta Agriculture has put considerable effort into opening the Chinese market to include Canadian livestock and meats, animal genetics, forage seeds, opportunities for livestock husbandry and technical and consulting services. Currently, Alberta Agriculture animal industry staff member, Don Scheer, has been seconded to the China Feed Industry Centre Project in Beijing to share expertise and gain international experience. There is also significant potential for Alberta to export grain and oilseeds, and malting barley for domestic beer production.

Following the rapid growth in income and urbanization, particularly in the southern part of the country, the demand for meat, non-staple and value-added food products such as canola oil and snack foods, has shown growth and interest.

Barbara Donadt, marketing officer at Alberta Agriculture explains that, "Alberta's technical agreement with China's Ministry of Agriculture and the World Bank and Canadian International Development Agency (CIDA) projects, provides an immediate financial benefit as well as creates market opportunities in China for the longer term."

"There are significant advantages for the province's agriculture sector to have a presence in targeted sectors in the China market." adds Penny Mah, project manager for Alberta Agriculture's strategic market information team. "While the Asian financial situation has affected most global markets, there will also be opportunities afforded to those who are both competitive and strategic."

Alberta Agriculture remains committed to the China market and to investigating and building on food product prospects using market research and intelligence gathering. Presently, Alberta Agriculture has a commercial representative (Liu Hongmei) located in Harbin and hopes to expand its presence in China in the near future. Our focus will be on developing market research and intelligence in the more sophisticated markets of Hong Kong, Southern China and Taiwan as well as the opportunity development in greater China.

For further information on China markets, contact Mah or Donadt at:

Marketing Services Division
Alberta Agriculture, Food and Rural Development
#300, 7000 - 113 Street
Edmonton,AB T6H 5T6

Fax: (780) 422-9746

Contact: Penny Mah
(780) 427-4241
penny.mah@agric.gov.ab.ca
Barb Donadt
(780) 427-4241
barb.donadt@agric.gov.ab.ca

Agri-tourism in Alberta

In 1998, the Alberta Accommodation and Visitor's Guide listed 36 guest ranches and farms, 12 wilderness lodges and over 325 bed & breakfast establishments in the province. It's called Agri-Tourism: the economic activity that occurs when people link travel with agricultural products, services or experiences.

"Agri-tourism is a growing industry in this province," says Sharon Homeniuk, rural development specialist-business with Alberta Agriculture, Food and Rural Development. "Apart from the accommodation-type operations, farm and horticulture experiences, recreation, and direct sales of home-grown, farm-fresh produce and products are being marketed as part of the tourism opportunity. A horseback tour through a back country livestock herd, a day picking fruits and vegetables and campfire cookouts are just some of the ideas Alberta entrepreneurs have put into action."

For the first time in Alberta, the rural development specialists, in association with Agriculture Business Management Branch and the Alberta Market Gardeners Association (AMGA) are offering workshops across the province between January and March 1999.

"All interested Albertans are invited to explore the opportunities presented at the ***Opening Your Gates to Agri-Tourism*** workshops," says Homeniuk. "Spending a day finding out how agri-tourism can diversify the farm family operation will be a day well spent. Agri-tourism is not only an income generating venture, it can also be a chance to increase awareness among non-farm people."

The one-day workshops will cover: planning steps, industry trends, safety and logistics, regulations, target markets and marketing, ideas and more ideas for Alberta-based agri-tourism ventures.

"People are attracted to rural areas for a number of reasons which opens the door to a variety of agri-tourism opportunities," adds Homeniuk. "A desire for peace and tranquillity, on-farm nostalgia, rural recreation, curiosity about the farming industry and lifestyle and the chance to do something completely different during vacation time are just a few of the reasons agri-tourism is catching on. At the workshops, many other aspects of this growing industry will be discussed."

Workshop schedule and rural development specialist contacts include:

South – Jan Warren (403) 485-2236 in Vulcan

Vulcan	January 21
Ft. Macleod	spring (TBA)

Central – Kathy Lowther (403) 948-8537 in Airdrie

Cochrane	February 16

Northwest – Sharon Homeniuk (780) 963-6101 in Stony Plain
Leduc January 28
Westlock February 10

Northeast – Marian Williams (780) 679-1210 in Camrose
Vegreville February 18

Peace – Tim Keating (780) 837-2211 in Falher
Fahler February 25

Cost of the workshop is $40 per person and $55 per couple, plus GST. Cheques should be made payable to the AMGA. For further information, or to pre-register, contact the rural development specialist. Alberta Government numbers are toll free by dialling 310-0000 first.

Contact: Sharon Homeniuk
(780) 963-6101

Livestock stats

Each year, Statistics Canada pulls together statistics that are one of the best sources of statistical information for the livestock industry.

"A new set of statistics is being prepared for release in January 1999," says Doug Walkey, market specialist with Alberta Agriculture, Food and Rural Development, Lacombe. "While the July 1998 report isn't new, there are some big picture trends that should be taken note of. Knowing last year's emerging trends and then comparing the July 1998 report with the January 1999 report will be an excellent measure of the industry growth or contraction. Getting a handle on industry statistics during 1998 is the first step."

The estimated total number of cattle and calves on Alberta farms on July 1, 1998 was 5.55 million head, down marginally by 0.3 per cent from 5.57 million during July 1997. Canada reduced cattle numbers less than anticipated between 1997 and 1998 which means that there are still large numbers of calves being marketed.

"The largest percentage decline was in replacement beef heifers, 12.5 per cent lower than in 1997," says Walkey. "Considering that heifers are more valuable for slaughter than as breeding stock, these numbers aren't surprising. These numbers also show why there are larger slaughter numbers in the 1998 statistics."

As of July 1, 1998, the estimated total number of pigs on Alberta farms was 1.86 million head, up slightly over one per cent from 1997. Notable increases in 1998 were for breeding sows and gilts, more than 6 per cent increase over 1997. The dramatic drop in hog prices were not precipitated by this marginal increase but are international in nature.

Matching up the statistics from 1997 and 1998 with the 1999 statistics will give us additional information on trends in the industry," adds Walkey. "The new report is expected by the end of January and will be available through Statistics Canada, through satellite market information systems such as Goballink or DTN, and through market specialists and consultants.

Contact: Doug Walkey
(780) 782-3301

New edible cooking oil

Solin is an alternative crop much like flax. From this crop, a new edible cooking oil has been produced. It has been declared safe to use in the U.S., most of Europe and in Canada.

"While Solin is like flax in many ways it contains a lower level of linolenic oil," says Gordon Frank, crop specialist with Alberta Agriculture, Food and Rural Development, Brooks. "The high linolenic oil content in flax makes it unstable for food use but makes it a good industrial oil. Solin contains high levels of lenoleic oil which is desirable for human consumption."

Solin seed is yellow rather than brown. The oil is similar to sunflower oil but tests show it has four per cent more linoleic content. Solin, or Linola, can be found in some of the highest quality oils and margarines. The seed is also blended into some whole grain breads.

Solin was originally called Linola because the only seed varieties recommended in Alberta are Linola 947 and Linola 989. The Linola 989 yields about the same as conventional flax. New varieties should be available soon.

As a crop of choice, solin is not very susceptible to sclerotinia and is a good alternate broadleaf crop in a rotation. It isn't attacked by most canola insects and diseases and is more heat tolerant than canola. Solin can be contracted so delivery opportunities are good and the price moves relatively independent of traditional cereal grains. It is usually priced at $10 to $20 per tonne over flax.

"Straw is often cited as a major deterrent to growing flax or solin," says Frank. "However, there is a market for baled flax straw. Large bales can be used for construction of silage pits and buildings. There is also sometimes a demand for flax and solin straw for paper or goose nesting sites. Small bales can be broken up and used to fill pivot tracks. Under some conditions, chopping and spreading can work. Plowing works if that is part of an operation's normal tillage practice, but this can result in mats of straw being buried that can be bothersome the next year

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"The new technology of straight cutting, or even better using a stripper header and direct seeding into the stubble works really well."

Solin is an alternative crop worth considering. For more agronomic information such as fertilizer and irrigation, producers should contact the crop specialist in their area.

Contact: Gordon Frank
(403) 362-1212

Coaching can clarify goals

Having a clear picture of an operation, well defined goals and explicate standards of quality of life helps farm managers become successful. Problems often result when these three factors are not in balance or when there is not clear direction set for an operation and that's when coaching can help.

"The Canada/Alberta Farm Business Management Program (FBMP) is making a subsidized coaching program available to Alberta farm managers," says Arla Trueblood, FBMP representative, Dapp. "The program has been developed to help farm couples ensure that their vision and goals are synchronized and clear. The coaching process is done over the telephone, at a time convenient for the coach and the farm managers."

"Coaching is designed to help people clarify values, articulate goals, define strategies and plans and implement action to achieve the vision," says Noel McNaughton, a coach trained at the Coaches Training Institute in San Rafael, California and the farm management instructor who designed this program. "Coaching by telephone allows the coach to study a couples' feelings which are so clearly expressed in the tone and nuances in their voices. By phone, the coach isn't distracted by facial expressions and body language."

The coach is not a consultant. The process is not designed to provide answers. The coach is a sounding board, a motivator, a friend, a mentor and occasionally a taskmaster. The coach asks the questions and the farm managers find solutions to their problems by answering these questions. In this coaching situation, the less the coach knows about the individual business and the people being coached, the lower the temptation to try to give answers.

"My husband, Brian and I took part in a one-hour telephone coaching session with McNaughton," adds Trueblood. "We were pleased to see that we've maintained a common vision about our farm and our lifestyle. McNaughton didn't give us answers, but he asked a number of pointed questions that helped us clarify the direction we want for our business and our personal lives. The coaching process helped us confirm that we share the same vision."

The coaching process consists of three coaching sessions per month, a total of two hours with the coach as a couple and individually, for three months. Between sessions, there is self-study to follow-up on the past coaching session and get ready for the next one. Cost to participants for the six hours of coaching is $600; FBMP contributes an equal amount to the cost of the program.

For more information about Farm Couple Coaching, contact McNaughton at (604) 736-1552, Vancouver, B.C. or Trueblood at (780) 954-3745, Dapp.

Contact: Arla Trueblood
(780) 954-3745

Warm conditions end in December

The overall provincial average temperature was 0.4 degrees above normal and the provincial average precipitation was 29 per cent below normal for December in Alberta.

"Alberta temperatures were slightly above normal in December after being above normal the previous five months," says Peter Dzikowski, agri-weather specialist with Alberta Agriculture, Food and Rural Development, Edmonton. "December temperatures were above normal for most stations in Alberta, but ranged from 1.4 degrees below normal to three degrees Celsius above normal."

Temperatures the first half of December were above normal while the second half of December temperatures were well below normal. December started sunny and warm with day time temperatures reaching double digits in southern Alberta. By mid-December, cold arctic air settled into Alberta and remained until the end of the month.

"The provincial average December precipitation of 15.8 mm was 6.6 mm below the 1961 to 1990 average of 22.4 mm," adds Dzikowski. "The Peace region reported above normal precipitation in December. Ballater reported 35 mm of precipitation, about 118 per cent of normal, the highest precipitation reported in the Peace. All other agricultural regions reported amounts of 0.4 to 49.2 mm."

Calgary International Airport reported 19 mm, 146 per cent of normal. On the dry side, Cardston reported 2.8 mm of precipitation in December, only eight per cent of it's long term average.

These averages are based on data recorded at 30 Environment Canada climate stations across Alberta. For more details on Alberta's December weather, visit the Alberta Agriculture web site at: **http://www.agric.gov.ab.ca**

Contact: Peter Dzikowski
(780) 427-3594

Agri-News Briefs

Farm technology expo

Alberta Canola Producers Commission, Alberta Pulse Growers Commission and Alberta Reduced Tillage Initiative are co-hosting the Alberta Conservation Tillage Society's ***AgriFuture 1999 Farm Technology Expo*** on February 3 to 5, 1999 at Westerner Park, Red Deer. The three-day conference agenda lists six plenary sessions on topics: Preparing your farm for the new technology revolution; the U.S. Food Quality Protection Act - don't cross the line!; Understanding production variables to optimize farm output; the Role of new life science technologies; and, Value-added opportunities in Alberta. The remainder of the sessions are categorized under six headings: pulse crops, canola production, reduced tillage strategies; market outlook and strategies; equipment technologies; and, economics. During the three days, the Alberta Conservation Tillage Society, the Alberta Canola Producers Commission and the Alberta Pulse Growers Commission will hold their annual meetings. A trade show is also featured as part of the Expo. It is open from 9:00 a.m. until 6:00 p.m. daily. For further information contact AgriFuture at 1-800-251-6846 (Alberta only), e-mail: **acts@telusplanet.net** or visit the AgriFuture home page at **http://agrifuture.reddeer.net**

Change of address for AQP

The office for Alberta Quality Pork (AQP) has moved to the Alberta Pork building, 10319 Princess Elizabeth Avenue, Edmonton, AB T5G 0Y5. The new phone number for AQP is (780) 477-6729 and the new fax is (780) 477-6720. As in the past, pork producers are encouraged to call AQP at the new office with questions, concerns and information needs. AQP can also be reached by e-mail at: **aqp@compusmart.ab.ca** For further information, contact Dawn LeBlanc at the AQP number, (780) 477-6729.

Commercial Strawberry/Raspberry Industry

Industry highlights, governing regulations, marketing and production tips and economic and finance facts make up the bulk of information in the new AgVenture factsheet on ***Commercial Strawberry/Raspberry Industry*** (Agdex 230/830-1). The industry profile factsheet also contains cost analysis and revenue and expense estimate tables that can be used as models when drafting individual business plans. Berry operations require intensive production management, high labour input, access to markets and attention to detail. Several key management 'rules' are also listed to help new industry entrants plan for success. All 24 AgVenture factsheets are available at no cost at all Alberta Agriculture, Food and Rural Development district offices and at the publications office, main floor, 7000 - 113 Street, Edmonton, AB T6H 5T6.

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Agri-News

January 25, 1999

Thinking about direct seeding?

A series of practical, up-to-date factsheets and a major workshop can provide you with the information you need to start making the move to direct seeding.

"Direct seeding practices have increased considerably in Alberta," says Peter Gamache, manager of the Alberta Reduced Tillage Initiative (ARTI). "In direct seeding, soil is not tilled in the spring before planting. This offers several benefits over conventional tillage, including increased soil moisture, increased soil organic matter, improved crop yield potential and time savings for field operations. However, the change to direct seeding requires a different approach to crop residue, weed and fertility management."

How to get the information you need. Right now, there is an excellent opportunity to get practical information on direct seeding from experienced direct seeding farmers at the AgriFuture Farm Technology Expo being held at the Westerner Park in Red Deer on February 3, 4, and 5, 1999. It features sessions on direct seeding topics, sponsored by the ARTI, on each of the three days.

Feb 3 – Direct Seeding in the Brown Soil Zone, with presentations from two direct seeding farmers: Clint Steinley from Empress, Calvin Treacy from Hussar; and a presentation by Grant Nelson, ARTI agronomist from Stettler

Feb 4 – Direct Seeding in the Dark Brown Soil Zone, with presentations from Robert Newlin, a direct seeding farmer from Lloydminster, Aaron Chronick, Marketing Manager from Monsanto Canada Inc. and Ron Heller, ARTI agronomist from Vermilion

Feb 4 – Developments in Direct Seeding Equipment, with presentations from Murray Green, Farm Machinery Engineer from Alberta Agriculture, and Lawrence Papworth, Test Engineer from Alberta Agriculture

Feb 5 – Direct Seeding in Black Soils, with presentations from Bill Chapman, a Crop Specialist with Alberta Agriculture, and Gregg Adair, a direct seeding farmer from Westlock

Feb 5 – Developments in Direct Seeding Equipment (repeat of the Feb 4 presentation).

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"There will be ample opportunities to share ideas about direct seeding with other farmers during the workshop," says Gamache.

The workshop theme is Fields of the Future. The registration fee includes the workshop proceedings, meals and a pass to the Farm Technology Trade Show. For the full three days, the fee is $150 for one person and $220 for a farm pair. Day rates are also available.

"As well as the conference, a comprehensive set of factsheets has been prepared to help farmers successfully adopt direct seeding," says Gamache. "Alberta Agriculture now has 30 factsheets in its Direct Seeding series. These factsheets provide up-to-date information on a broad range of topics including: equipment; economics; weed control; disease control; insect and wildlife pest control; crop residue management; soil fertility."

The Direct Seeding factsheets will be available at the ARTI booth at the AgriFuture trade show. They are also available from Alberta Agriculture district offices, Alberta Agriculture's publication office, 7000 - 113 Street, Edmonton AB T6H 5T6, and on the internet at

http://www.agric.gov.ab.ca/agdex/500/index.html

For more information on AgriFuture, contact the Alberta Conservation Tillage Society toll free at 1-800-251-6856 (Alberta only) or (403) 572-3600, or visit the workshop's website at **http://agrifuture.reddeer.net**

Contact:	*Peter Gamache*	*Carolyn King*
	(780) 427-3361	*(780) 427-3616*

Direct Seeding factsheets to date:

- Controlling Canola Diseases in Direct Seeding Systems (Agdex 519-1)
- Handling Difficult Crop Residue Conditions in Direct Seeding Systems (Agdex 519-2)
- Pre-seeding Weed Control with Herbicides for Direct Seeding (Agdex 519-3)
- Equipment Issues in Crop Residue Management for Direct Seeding (Agdex 519-4)
- Winter Annual Weed Control in Direct Seeding Systems (Agdex 519-5)
- Perennial Weed Control for Direct Seeding (Agdex 519-6)
- Direct Seeding Economics for the Dark Brown Soil Zone of Alberta (Agdex 519-7)
- Direct Seeding Economics for the Black and Gray Wooded Soil Zone of Alberta (Agdex 519-8)
- Controlling Wheat Diseases in Direct Seeding Systems (Agdex 519-9)
- Soil Fertility Implication When Converting to Direct Seeding (Agdex 519-10)
- Controlling Narrow-leaved Hawk's-Beard in Direct Seeding Systems (Agdex 519-11)
- Solving the Wheel Track Dilemma in Direct Seeding (Agdex 519-12)
- Controlling Barley Diseases in Direct Seeding Systems (Agdex 519-13)
- Downy Brome Control in Direct Seeding Systems (Agdex 519-14)
- Foxtail Barley Control in Direct Seeding Systems (Agdex 519-15)
- Controlling Wildlife Damage in Direct Seeding Systems (Agdex 519-16)
- Removing Forages from the Rotation in a Direct Seeding System (Agdex 519-17)
- Toadflax Control in Direct Seeding (Agdex 519-18)
- Controlling Canola Insect Pests in Direct Seeding Systems (Agdex 519-19)
- Anhydrous Ammonia Use at Seeding (Agdex 519-20)
- Canada Thistle and Perennial Sow-thistle Control in Direct Seeding Systems (Agdex 519-21)
- Seed Row Spacing and Seeding Rates in Direct Seeding (Agdex 519-22)
- Controlling Field Pea Diseases in Direct Seeding Systems (Agdex 519-23)
- Residue Management for Successful Direct Seeding (Agdex 570-4)
- Making the Move to Direct Seeding (Agdex 570-5)
- Soil Quality and Moisture Conservation Benefits of Direct Seeding (Agdex 570-6)
- Direct Seeding Systems: Terms, Definitions and Explanations (Agdex 570-7)
- Soil Temperature and Direct Seeding (Agdex 590-2)
- Direct Seeded Winter Wheat (Agdex 112/22-1)

Alberta greenhouses getting ready

Alberta greenhouses are already getting ready for springtime vegetables and bedding plants. Alberta greenhouse crops growers started planting tomatoes, cucumbers and peppers in the middle of December so that fruits can be supplied to the markets as early as possible.

"Getting vegetable seedlings off to a good start is the key to profitable harvest later on in the season," says Dr. Mohyuddin Mirza, greenhouse crops specialist, Alberta Agriculture, Food and Rural Development, Crops Diversification Centre North (CDCN), Edmonton. "Greenhouse peppers take the longest time from seeding to harvest, about 130 days. That's why

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peppers are started in the middle of October. Tomatoes take about 110 days and seedless cucumbers take about 70 days from seeding to harvest."

Alberta should have good quality locally grown seedless cucumbers on the market starting in early February. If sunlight is good, shoppers may even see 'home-grown' cucumbers in late January on Alberta store shelves.

"A lot of tender, loving care goes into the production of these vegetables," Mirza stresses. "Good quality seedling is the start. Growers have to make sure plants are grown at proper temperature, relative humidity, carbon dioxide and that balanced nutrients are made available. It's possible to grow crops without pesticides and fungicides. That means growers also have to work hard on controlling diseases and insects."

Bedding plants are not very far behind vegetables. Begonias were seeded in December. Geranium cuttings are already being rooted and new cuttings are being taken. Many growers are already working towards making beautiful hanging baskets for spring.

The Crop Diversification Centres North (780 422-1789), and South, Brooks (403 362-1300), can be contacted for further information on growing greenhouse vegetables and bedding plants.

Contact:	*Mohyuddin Mirza*	*Jim Calpas*
	(780) 415-2303	*(403) 362-1312*

Making management decisions by reading plants

A plant can tell many stories if the capability to understand plant's language is cultivated. According to Dr. Mohyuddin Mirza, greenhouse crop specialist, Crops Diversification Centre North, Edmonton, Alberta Agriculture, Food and Rural Development, plants can give a lot of information about their health status to producers if looked at closely and if producers understand what the different symptoms mean.

"If tomato leaves are too big, dark green and very few flowers and fruit, it means that too much nitrogen is being supplied," says Mirza. "In the plant's language, it's saying: Thanks for the pampering but you won't get much fruit. The way a cluster comes out of the stem is telling another story. A flower cluster that is thick, long, has big flowers and is running almost parallel to the stem, indicates cooler temperature and high relative humidity in the greenhouse."

A cucumber plant has its own language. Producers can read the plant by looking at the leaves, flowers and fruit and can then make the necessary management decisions.

"Reading tomato plants, cucumber plants and the Zen of greenhouse peppers are three publications that describe plant symptoms, how to understand these symptoms and how to make decisions," adds Mirza. The publications are available by contacting the Crop Diversification Centres North (780 422-1789), and South, Brooks (403 362-1300).

Contact:	*Mohyuddin Mirza*	*Jim Calpas*
	(780) 415-2303	*(403) 362-1312*

Lower handling and farm transportation costs

Alberta grain farmers will be pleased with the Estey report, says Ken Moholitny, chairman of the Alberta Grain Commission, Alberta Agriculture, Food and Rural Development.

"Justice Willard Estey was told that farmers want lower costs and greater efficiency, improved service to customers, improved net returns, and reduced risk. Alberta Grain Commission members are extremely frustrated with the current system, and want a new approach for the vast variety of products now produced on Alberta farms. Justice Estey clearly listened, and focused on what would be best for the farmer and the customer, and not necessarily the various companies and agencies."

Estey's report calls for a new commercial and contract-based system for grain handling and transportation. The ***Grain Handling and Transportation Review*** was prepared for the Honourable David Collenette, Minister of Transport (Canada), and released December 30, 1998. Estey made 15 recommendations after talking to over 1,000 stakeholders, reviewing 256 written submissions and travelling over 128,000 miles across Western Canada.

The Alberta Grain Commission's submissions to Estey were based on grassroots input from farmers who participated in focus groups held around the province in February and March 1998, and the views of the AGC members. The Commission's second submission in September challenged Estey to be forward-looking and take bold action toward a more commercial system that would ensure responsible, accountable practices, from elevator to port and reduce costs and time, through competitive forces from elevator to ship.

The Commission also challenged the review to save at least 10 per cent across the grain logistics system.

The AGC applauded Justice Estey for concluding in his report that, "farmers can expect to see significantly lower charges for handling and transportation as the new millennium unfolds, especially if a new commercial and contract-based system emerges with the (Canadian Wheat) Board confined to sales and marketing and grain companies and railways responsible

Cont'd on page 4

for handling and transportation." The final recommendation of the Estey report calls for a review after the 2000/2001 crop year to see if the productivity gains started in 1997/98 were actually achieved and passed on to the farmer.

Farmers told the Grain Commission that they were tired of the debate over improving the grain export system and were skeptical that improvements will be made or that people will listen. "Estey did listen," says Moholitny. "Hopefully all the players in the system will look at this report and keeping in mind that the ultimate goal should be lower costs and a more efficient system for prairie farmers. If the recommendations are adopted and acted upon quickly, this report, along with the new governance of the Canadian Wheat Board, the rationalization of the elevator system, and more prairie value adding could lead to significant handling and transportation cost improvements for Alberta farmers."

The Alberta Grain Commission encourages Alberta farmers to endorse this report and to contact the Minister of Transport by the end of January to say that they want the federal government to move swiftly on these recommendations. The Minister's address is:

The Honourable David Collenette, Minister of Transport
29th Floor, Tower C, Place de Ville
330 Sparks Street
Ottawa ON K1A 0N5

The AGC is made up of six farmers from various parts of the province and three representatives from Alberta Agriculture, Food and Rural Development. The AGC mandate is to review any and all matters relating to the grain and oilseeds sectors, make recommendations to the Minister of Agriculture, Food and Rural Development and conduct appropriate activities that promote the on-going growth and development of the grains industry. The AGC continues to rely on farmer input on grain industry issues.

Contact:	*Ken Moholitny* *(403) 427-3078*	*Brenda Brindle* *(403) 427-3077*

Framework for Alberta livestock feeding operations

The document outlining a proposed new regulatory framework for livestock feeding operations (LFOs) in Alberta is now available for public review and comment.

This document is the second stage of consultations on regulatory options for livestock operations. The framework could serve as the basis for new legislation and regulations governing LFOs in the province, with the ultimate goal of clarifying good agricultural practices and working with producers to ensure a long-term, sustainable agriculture industry in Alberta.

Livestock feeding operations are defined as areas where animals are confined for feeding purposes in a constructed facility. LFOs do not include grazing situations.

The framework was developed by a stakeholder advisory group, formed by the Minister of Agriculture, following extensive public consultations held around the province during April, May and June, 1998.

The consultations solicited comment on several different proposals for regulatory options for livestock feeding operations. The stakeholder advisory group's purpose was to help the province review the comments that were received and develop a regulatory framework.

The document contains several requirements for an improved regulatory system. It makes provisions for:

- uniform operational standards and performance criteria to create a level playing field across the province;
- rules and standards that are realistic, achievable and enforceable;
- addressing existing operations, so they don't pollute;
- technical experts to evaluate the technical aspects of an operation and,
- municipalities make land use decisions.

The proposed framework re-affirms that municipal governments are responsible for determining which activities are acceptable within their jurisdictions through the municipal planning process. The proposed framework will also assist officials with Alberta Environmental Protection and Alberta Health in administering their Environmental Protection and Enhancement Act and Public Health Act.

Albertans interested or involved in the process are encouraged to obtain a copy of the package to review the proposed framework. Those who made submissions during the first round of consultations will receive this package in the mail.

The proposed regulatory framework document is available by calling (780) 422-2070 (toll-free in Alberta by first calling 310-0000), on the Internet through Alberta Agriculture's website:
http://www.agric.gov.ab.ca/economic/policy/ilo/index.html
and at all of the Alberta Agriculture's district offices. The document includes a short, postage-paid reply form that should be mailed back into Alberta Agriculture's offices by February 5, 1999.

Contact:	*Wayne Inkpen* *(780) 422-2070*	*Maureen Barnes* *(780) 422-2070*

Abortions in beef herds

Years ago, many of the causes of abortions in cows were unrecognized and undiagnosed. Today, this still happens and up to 50 per cent may still be undiagnosed. There are many reasons for abortions and while in some cases outbreaks may be small, in others, there may be large losses.

"Abortions may result from viruses, bacteria, faulty feeds or nutrition, twinning, stress, trauma or congenital defects," says Bill Grabowsky, beef specialist with Alberta Agriculture, Food and Rural Development, Wetaskiwin. "Abortions can occur early in the pregnancy and go unrecognized while other forms of abortions occur in the mid and later parts of the pregnancy and are more visible to the herd owner."

The most common infectious causes of abortions are IBR (Infectious Bovine Rhinotracheitis) and BVD (Bovine Viral Disease). IBR is a virus that can cause abortions in the last six to nine months of pregnancy. Some calves are born alive, but are weak and susceptible to other infections. BVD infections can be seen at all stages of pregnancy. If the female was infected early in her pregnancy, abortion and mummification are the results. Mid-term infections lead to congenial deformities while infections occurring in the last third of pregnancy can result in healthy calves with immunity to BVD. Vaccination schedules are used to control this disease. As with all drugs and combinations of drugs, producers should consult with their area veterinarian.

"If either IBR or BVD are suspected, the cow herd should be visited by a veterinarian as blood work may be needed," says Grabowsky. "Finding the cause in the short term will lead to preventative measures in the long run."Nutritionally speaking, deficiencies of minerals like phosphorus, selenium, copper and Vitamin A can lead to abortions. Moldy feeds can be a real problem as the fungal spores grow and produce molds, abortion and infertility can result. Mycotic abortions can result if the fungal elements from moldy feed enter the bloodstream from the lungs. In these cases, the placenta is infected and abortions result. If the fetus is infected, fungal lesions can be seen on the skin. Ergot poisoning, from pregnant cattle eating ergot fungus infected grain, will also cause the fetus to abort.

"Infectious abortions can be spread by the bull," adds Grabowsky. "For example, trichomoniasis (tric) is a venereal disease, spread by a protozoal agent at breeding. A vaccine is not yet available for this disease: preventative testing of bulls is the only way to safeguard a herd against introduction of 'tric'. Vibriosis, brucellosis, and leptospirosis are less common causes of infectious abortions. There are vaccines available for these infectious conditions.

"For cowherds nearing the last third of pregnancy, all abortions should be documented and reported to the local vet. One to two per cent of abortions are normal over the term of pregnancy. If they come in bunches, consult a vet. It is most helpful if the veterinarian can see fresh aborted fetuses complete with placentas. Some causes may be visible but most involve laboratory work. Producers need their veterinarian to determine exactly what the problem is to be able to take preventative or corrective action."

Contact *Bill Grabowsky*
(780) 361-1240

Alberta's processing industry's summer employment program

The ***Agricultural Processing Industry Employment Program*** (APIEP) provides career-related experience and skill training to students employed in Alberta's processing industry from May 1 to August 31. Processors who hire a student for the summer are reimbursed for one-third of the employee's salary, up to $500 per month.

"The APIEP is funded by Alberta Advanced Education and Career Development and administered by Alberta Agriculture, Food and Rural Development," says Christine Paproski, program delivery specialist with Alberta Agriculture, Edmonton. "It began in the summer of 1996. Pending confirmation of funding from Alberta Advanced Education and Career Development (AECD) at the beginning of March, the program will be running again in the summer of 1999."

Employers must be the owner of a value-added processing business, located in Alberta. This includes primary producers who are adding value to a raw agricultural product (e.g. washing, packaging, pricing). Students must be attending a post-secondary institution, enrolled in a degree, diploma, or certificate program, be returning to school in the fall, and may not be a relative of the employer. Employment must provide career-related experience for the student and must be full-time for at least four, continuous weeks within the program period

The program is valuable for both the processor and the student. MacKay's Cochrane Ice Cream has participated in the program for the past three summers. According to Robyn MacKay, "The program enabled our company to hire a student with a food science background; we would normally not have been able to afford a summer student with such qualifications The student had the opportunity to obtain experience in the food production

industry at a fair wage. We believe the APIEP allows MacKay's Ice Cream to keep up with current trends and issues as the student learns and shares his or her knowledge. This helps us to move our business forward."

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University of Alberta food science student, Shawna Stein worked for MacKay's Cochrane Ice Cream in 1998 and agrees that the APIEP was instrumental in helping her gain experience in her field. "Working for MacKay's this past summer was a very valuable experience. I got a hands-on introduction to various aspects of processing including quality control, quality assurance, and packaging. Without the government funding, I may not have been able to get this experience."

Over 185 processors in the province were sent an application package on January 4, 1999. Employers have until the end of April to recruit a student and submit their completed application.

For more information on the APIEP, or to obtain an Application and Program Guidelines, contact Paproski in Edmonton at (780) 427-3124. Government numbers are toll free in Alberta by dialling 310-0000 first.

Contact: Christine Paproski
(780) 427-3124

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Agri-News Briefs

Hort Congress – a growing event

The Alberta Horticulture Congress, held in Edmonton in November 1998, attracted a record number of attendants again. Over 800 attended the 50 diverse sessions presented by speakers from across Canada and the U.S. The sessions were sponsored by the Greenhouse Growers, the Market Gardeners, Landscape and Nursery Trades Alberta, the Fruit Growers and the Flower and Herb Growers. This annual congress has grown to be a premier education and networking event. In 1999, the Hort Congress will be held on November 11 to 13 at the Mayfield Inn, Edmonton. Each year the Prairie West Horticultural Trade Show is one of the congress special features. Last year, it attracted over 1800 industry professionals. The 168 exhibitors in 1998 were pleased with the quality of the show and the excellent turnout. For further information or to be on the mailing list, contact Shirley Alton at (780) 415-2324.

RCW provincial workshop

February 1 to 6, 1999 is Rural Crime Watch (RCW) Week in Alberta. Each year, during RCW week, the provincial association holds a workshop. This year the RCW provincial workshop is being held on February 5 and 6 at the J.C. Charyk High School in Hanna. Participants will be able to chose sessions from a number of topics, such as: Self Defence for Women; National Electronic Identification for Cattle; Landowners Rights and the Petroleum Industry; How Bill C-68 (Firearms Legislation) Affects You; and, Alberta Transportation Farm Vehicle Safety, to name a few. The provincial association meeting is scheduled for February 6. The 1999 RCW Provincial Workshop is hosted by Hanna/Rangeland RCW Organization with assistance from the Drumheller and Brooks RCW Organizations. For more information, contact the Royal Canadian Mounted Police/Hanna Detachment at (403) 854-3393, or Stephen Cross at the Hanna district Fish and Wildlife office (403) 854-5540.

Agri-News

February 1, 1999

Recognizing environmental excellence

Agriculture is one of the oldest, still actively growing industries in Alberta. Technology, experience and hard work have helped agriculture maintain a reputation as one of the best industries when it comes to land stewardship, producing excellent product, technology growth and at the same time, endeavouring to keep on the green side of the environment.

"It would be naive to suggest the agriculture and food industry does not have its share of producers and agri-business whose report card might read, 'Could do better!'," says Louise Starling, communications specialist with the Livestock Expansion and Development Team (LEAD Team) Alberta Agriculture, Food and Rural Development, Red Deer. "But it is equally wrong to suggest that a few are representative of the industry as a whole. The vast majority of Albertans involved in the agriculture industry are caring, highly-skilled people accomplishing agricultural growth and development in a responsible manner."

Alberta Emerald Awards, sponsored by the Alberta Foundation for Environmental Excellence and several corporations, recognizes outstanding initiative and leadership Albertans demonstrate in the face of the environmental challenges of the 1990's. They represent the significant strides being made by Albertans to protect, preserve and enhance the environment.

The Emerald Foundation is looking for people, groups and businesses in agriculture that have set an example for environmental achievement. Nominations are now open and the deadline for submission is February 26, 1999

For more information about the Emerald Awards or to request a nomination form, please contact Becky Vander Steen, Emerald Foundation, phone (780) 413-9629 in Edmonton or 1-800-219-8329 (toll-free elsewhere in Alberta), or by email: **bvs@trevose.com**

More information is also available from the Emerald website at: **http://www.emeraldawards.com**

Contact *Becky Vander Steen* *(780) 413-9629*
Louise Starling *(403) 340-5306*

This Week

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Agri-News **Publishing Branch, Tel: (403) 427-2121 Fax: (403) 427-2861**

Internet site: www.agric.gov.ab.ca/agrinews Editor e-mail: agrinews@agric.gov.ab.ca

RCW helps crime-proof rural Alberta

Rural Crime Watch Week is February 1 to 6, 1999. Rural Crime Watch (RCW) promotes crime prevention throughout the province, and includes rural residents in the program as extra 'eyes and ears' working together with the RCMP.

"During Rural Crime Watch Week, local associations are encouraged to work with the media in the area and hold events to profile their associations," says Constable Jamie Motokado, of the Royal Canadian Mounted Police (RCMP) Hanna Detachment, and one of the members of the 1999 RCW workshop organizing committee.

The program, started as a pilot project in 1979, has grown to include 108 community RCW associations in the province with a combined membership of approximately 20,000 households. RCW's one major goal is to decrease rural crime that affects farmers, ranchers, acreage owners and others who have a vested interest in rural communities.

"The Alberta Provincial Rural Crime Watch Association was set up to help coordinate activities with the involved communities," says Cliff Munroe, Alberta Agriculture, Food and Rural Development's liaison with the RCW program, Edmonton. "The Association includes representatives from a number of RCW associations in Alberta as well as honorary directors from Alberta Environmental Protection, Alberta Farmers Advocate, Alberta Justice, Alberta Livestock Marketing, Alberta Cattle Commission, United Farmers of Alberta and the RCMP. RCW works, and member communities are to be commended for their diligence, cooperation and safety-conscious focus."

Contact: Cliff Munroe *(780) 422-7249*
Jamie Motokado *(403) 854-3393*

Cattle AD/CVD – just the facts

On October 1, 1998, the U.S. Ranchers-Cattlemen Action Legal Foundation (R-CALF) filed three separate petitions with the U.S. Department of Commerce (DOC) requesting initiation of anti-dumping (AD) and countervailing duty (CVD) investigations on imports of live cattle from Canada and anti-dumping actions against imports of live cattle from Mexico. The petitions covered slaughter and feeder cattle, but excluded breeding animals.

"For the Canadian case, R-CALF alleges a dumping margin of about $100 Canadian per head, and government subsidies of about $100 per head," says Nithi Govindasamy, with Alberta Agriculture, Food and Rural Development's policy secretariat, Edmonton. "Among the 34 programs cited in the original CVD petition are the Alberta Feeder Association's Guarantee Program, the Canada/Alberta Beef Industry Development Fund, Alberta Public Grazing Lands Improvement Program and Provincial Crown Lands Programs. Both Net Income Stabilization Account (NISA) and the CWB export monopoly on barley are alleged to provide countervailable subsidies."

The U.S. National Cattlemen's Beef Association (NCBA), representing the majority of U.S. cattle producers, moved to support the CVD investigation on Canada and took no position with respect to the AD petition against Canada. On November 10, 1998, R-CALF withdrew all three petitions. But, the game wasn't over yet – two days later, the same three petitions were re-filed by R-CALF, this time purporting to contain more information on the level of industry support for the petitions.

On December 22, 1998, the DOC announced the initiation of all three investigations. It was time for the United States International Trade Commission (USITC) to determine, on a preliminary basis, whether any harm or 'injury' to the U.S. industry had occurred or threatened to occur as a result of cattle imports. If not, the cases would be terminated. Under U.S. law, if the investigations confirm that imports are being dumped (i.e., either prices in the exporting country are higher than the prices for export to the U.S., or export prices are below the full cost of production in the exporting country) or are unfairly subsidized and cause injury to the U.S. domestic industry, offsetting duties may be imposed on Canadian and Mexican imports of live cattle.

"On January 19, 1999, the USITC voted four to two that there was a reasonable indication of material injury or threat of injury caused by dumped and/or subsidized live cattle imports from Canada," says Len Ewanyk, senior policy analyst with Alberta Agriculture's policy secretariat, Edmonton. "At the same time, the determination on injury on live cattle from Mexico was negative, effectively terminating the AD case against Mexico.

"Procedurally, the DOC will now have to determine whether dumping has occurred and whether countervailable subsidies have been provided before the ITC can make a final injury determination. The DOC's preliminary determination on dumping, absent an extension, will be made on May 11, 1999, but may be extended until June 30, 1999. At that time, provisional antidumping duties could be applied. The preliminary countervailing duty (CVD) determination will be made by May 3, 1999. Provisional duties could be applied at that time. Final determination of injury by the ITC is expected by the end of 1999 or early January 2000. It is only when the ITC makes its final affirmative ruling on injury that duties are levied on a permanent basis."

The Government of Alberta has employed legal counsel in Washington, D.C. to defend our cattle industry against these unfounded subsidy allegations. The Canadian Cattlemen's Association is taking the lead in fending off the dumping allegations. The Government of Canada and other provincial governments, as well as the Canadian Wheat Board have legal

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counsel working on their behalf. Given the large number of provincial and federal programs under investigation, a joint defence strategy is being implemented.

In 1997, Alberta exports of live cattle (excluding pure-bred breeding cattle) were valued at $658 million. In the first nine months of 1998, the value of Alberta's exports to the U.S. amounted to $543 million. Canadian cattle exports to the U.S. make up less than four per cent of total U.S. consumption.

Contact:	*Nithi Govindasamy*	*Len Ewanyk*
	(780) 422-2124	*(780) 422-2125*

Alberta's warm '98

The 1998 average annual temperature was very warm at 1.4 degree above the average for the 1961 to 1990 period. The province averaged 399.7 mm of precipitation, which was slightly below the annual normal of 442 mm. These averages are based on data recorded at 30 Environment Canada climate stations across Alberta.

"Every month, except January and June, 1998 had above normal temperatures," says Peter Dzikowski, agri-weather specialist with Alberta Agriculture, Food and Rural Development. "While 1997 was also very warm, with average annual temperature of 1.2 degree C above normal, 1998 surpassed that mark."

The above normal temperatures and a warm dry spring, allowed producers to seed early and crops to establish and mature faster. The excellent heat and good moisture in most regions resulted in one of the earliest harvests on record.

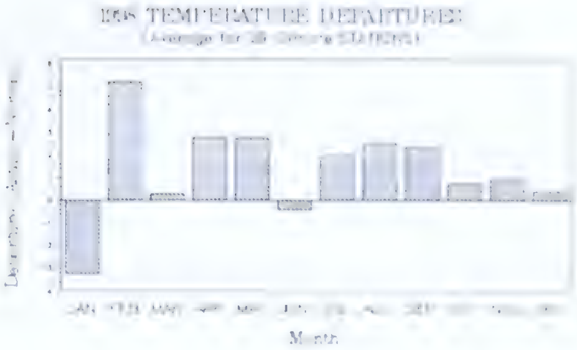
"Leading into 1998, December 1997 was the warmest and driest on record for several Alberta locations, typical of what can be expected in Alberta when El Nino occurs," says Dzikowski.

"1998 started with cold Arctic air dominating the weather the first half of January, in spite of the El Nino. The temperatures changed to near normal values the third week of January and returned to above normal by the end of the month, more in line with the conditions expected during an El Nino event."

The mild dry winter weather continued into February with above normal temperatures and below normal precipitation totals, typical of El Nino's influence on Alberta. The provincial average temperature was 5.2 degrees above normal. Most Alberta locations reported monthly average temperatures 1.5 to 9.3 degrees above normal.

March weather was snowy with above normal precipitation and near normal temperatures.

A snow storm in mid-march dropped 20 to 50 mm of precipitation in southern Alberta. Calgary's monthly precipitation total of 59.4 mm was 412 per cent of normal for March. Above normal precipitation was typical of most stations in south west Alberta.

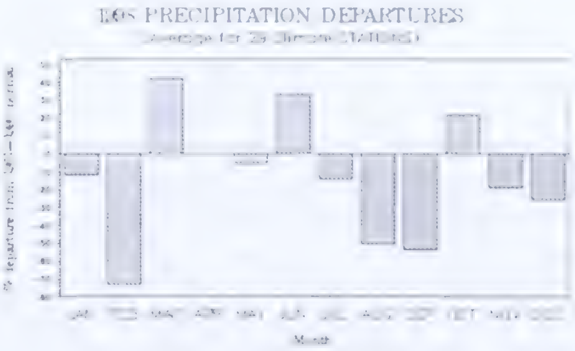


"Albertans enjoyed summer-like weather in April and May with well above normal temperatures and near normal precipitation," continues Dzikowski. "The warm dry spring allowed producers to seed early. May started with daytime temperatures reaching around 30 degrees. Temperatures returned to slightly above normal the second and third week of May. The warm dry weather continued to the end of the month creating concerns about dry conditions for emerging crops and pastures."

June started with a light frost but minimal crop damage occurred as a result of the near zero degrees temperatures in northern and eastern Alberta.

"The first three weeks of June, showers provided adequate moisture in most of the southern and central regions, but the northeast, northwest and Peace regions were dry," adds Dzikowski. "During the last week of June, the first widespread rain of the growing season covered the southern two thirds of Alberta. Precipitation totals of 50 to 125 mm, in southern and central regions, provided good moisture for crop growth. The northeast region reported between 25 and 50 mm, which helped but did not provide enough moisture. The Peace region remained dry with isolated showers of 0 to 25 mm."

Excess moisture in south and central Alberta slowed haying operations in July while the northeast and Peace regions remained dry. July started with near normal daytime temperatures, changing to above normal temperatures during the second week. Temperatures cooled to slightly below normal by mid-July and above normal temperatures returned for the end of the month. July temperatures ranged from slightly above normal to three degrees Celsius above normal.



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"Growing degree day totals from April 1 to September 30 were equivalent to a growing season about three to four weeks longer than the normal in Alberta, contributing to early crop maturity and an early harvest with little concern about fall frost," says Dzikowski.

"Although frost was reported in parts of the Peace and southern regions on September 19, the first widespread killing frost occurred on September 29 and 30. That's about two weeks later than the average first fall frost date for most agricultural regions of Alberta.

Temperatures dropped to between 0 and -7.7 degrees. The frost was followed by ideal harvest weather conditions."

In many parts of the province conditions differed quite a bit from what the provincial averages show. For example, the annual total precipitation at Peace River was 210.3 mm, 54 per cent of its long term average. Below normal precipitation totals were reported in the Peace region and the northeast region.

In contrast, Stavely West (Agriculture and Agri Food Canada) received more than three times that amount, 709.8 mm or 166 per cent of its 1961 to 1990 average. Above normal precipitation were reported in southern Alberta.

More details on Alberta's weather are available on the Alberta Agriculture internet site at:
http://www.agric.gov.ab.ca/navigation/sustain/climate/index.html

Contact: *Peter Dzikowski*
(780) 427-3594

AgVenture workshops

Looking for new production and marketing alternatives but not sure where to start or what's right for the farm and family? AgVenture workshops are being offered throughout the province in 1999.

"The AgVenture workshops are partially sponsored by the Agricultural Business Management Branch and are organized by business development specialists with Alberta Agriculture, Food and Rural Development," says Jean Wilson, business development adviser with Alberta Agriculture. "The goal of the workshops is to help farm families understand and assess diversification opportunities at an early stage."

As Len Bauer, a former University of Alberta agricultural economics professor states in a 1998 paper titled *Business Management Issues in Alberta's Expanding Primary Agricultural Sector,* "Business development presupposes doing the right thing. It makes little sense to develop a business that contemplates the production of goods and services lacking economic potential." Business failure rates range from 25 to 50 per cent in the first two years, so planning and evaluating the feasibility of a business is essential.

"Topics for the workshops vary with location, but the management information and the tools that participants will learn about are applicable to any diversification opportunity," adds Wilson. "Participants will benefit by learning to evaluate where they want to be, options, market risks and opportunities, and cash flow. The importance of markets and marketing will be emphasized. Farmers are usually most interested in production information, but without a market for a product – whether it's organic carrots, rhea meat or borage – a new venture probably won't be profitable."

Experienced producers, business consultants and agriculture specialists will share ideas. Participants will have a chance to make new contacts, view displays and meet the people working in the industry. Registration information is available from the contacts listed. Depending on interest, choose:

Alternative Livestock – Rocky Mountain House – February 24
Lynn Stegman, Alberta Agriculture (403) 782-3301

Horticulture – Camrose – February 24
Marian Williams, Alberta Agriculture (780) 679-1210

Horticulture – Brooks – February 23
Jan Warren, Alberta Agriculture (403) 485-2236 or
Julie Kennett PFRA (403) 292-6745

Alternative Crops – Bow Island – February 24
Julie Kennett, PFRA (403) 292-6745

Organics and New Crops – Vulcan – February 25
Jan Warren, Alberta Agriculture (403) 485-2236

Alternative Crops and Ag Tourism – Drumheller – March 9
Linda Hawk, Alberta Agriculture (403) 854-5500

Special Crops – St. Paul – March 9
Morley Kjargaard, Alberta Agriculture (780) 645-6301

Farm Diversification – Falher – March 20
Tim Keating, Alberta Agriculture (780) 837-2211

Government of Alberta numbers are toll free by dialling 310-0000 first.

Contact: *Jean Wilson*
(780) 415-2146

Manure management workshops

Getting a handle on manure management and making the most of nutrients in manure may be just a workshop away. Alberta Agriculture, Food and Rural Development's conservation and development branch and LandWise Inc. offer a two day workshop on nutrient resource management. These courses are being funded by the Farm Business Management Program (FBMP), Alberta Cattle Commission (ACC) and the Alberta Environmentally Sustainable Agriculture Program (AESA).

Cont'd on page 5

"The workshop is titled *Understanding Farm/Ranch Resources for Manure Management*," says Tamara Lewis, conservation economics agrologist with Alberta Agriculture. "With the proposed regulatory framework for livestock feeding operations across the province, there is a need for producers to take a pro-active approach to this area of management."

"There is a lot happening in the area of manure management in the province this year," says Craig Smith, FBMP representative. "We feel these workshops offer producers a results-based opportunity to make things happen on their individual operation."

The two-day workshop offers a practical, hands-on experience for the participants. They will work with aerial photographs of their own property to develop a resource management plan implementing best management practices that reflect guidelines in the proposed regulatory framework.

"Strong action is important to maintain a positive image with neighbours and community," adds Smith.

Each workshops' agenda is designed to reflect the needs of the community. Some of the topics addressed by LandWise Inc. and Alberta Agriculture specialists include:

- Concepts of Land Resource planning
- Water Quality Issues and watershed protection.
- Off site watering for livestock
- Avoiding contamination of farmstead water
- Manure nutrient management
- Ag initiatives: programs for Environmental Protection
- Recharge vs discharge: runoff risk
- Manure sampling: soil sampling
- Identifying best management practices

Workshop locations:

- February 8 & 9 – High River **and** Vermilion
- February 10 & 11 – Fort Macleod
- February 16 & 17 – Castor
- February 18 & 19 – Stettler
- February 22 & 23 – Three Hills **and** Brooks
- March 1 & 2 – Hines Creek
- March 3 & 4 – Grande Prairie

Pre-register three weeks in advance to allow time to order aerial photographs of your operation. The cost of the two-day workshop is $125 per farm unit, which includes the aerial photograph, workshop binder and lunch both days.

Contact: *Tamara Lewis*
(780) 427-3819

A labour of love – or just plain work?

Labour costs are an important aspect of any business, however, many processors forget to include an adequate amount for their own management expertise. Processing packaging, record keeping, marketing, sales and other management activities can all be considered under labour.

"Keeping track of management activities for a week or more will give a good indication of how much time is spent and how much time should be included in the business plan," says Kerry Engel, rural development specialist, business, with Alberta Agriculture, Food and Rural Development, Westlock. "Labour costs are considered variable since they change with the number of products units produced."

When calculating the value of the labour contributed to a business, it may be helpful to start by determine the going rate for a particular job. The rate may be what would be paid to an employee for doing the job or the minimum wage. Jobs that require special training or expertise, or require some decision making skills should be allocated a higher rate than tasks that require little training. A simple calculation for work done can be: hours/day x days/week x rate/hour = total value

You will want to make a list of all the various jobs you do in your business; which tasks you enjoy doing or have special skills in, and which ones you could perhaps find other people to do for a lesser cost. This will ensure that you spend your time and energy on the tasks that gives you the "most bang for the buck."

On TV, game show participants only have to guess the price of an item to win. Food processors, however, need to consider other factors in order to set the right price for their products. Contact on of the province's rural development specialists for more information on pricing products and for the latest copy of the Northwest Processor newsletter.

The latest issue of the Northwest Processor includes information on: The Price is Right; Rules of Thumb for the Retail Market; Tips for Building Better Relationships with Your Lender; Pricing - an Art and a Science; You and your Broker; Innovative Financing with AFSC Commercial lending; Summer Employment Program for Alberta's Processing Industry; Spotlight on In Dey-Go Cookie Dough Co.; Jar Supplier Information; Unconventional Sources of Capital Available to Food Processors; Upcoming events.

The ***Northwest Processor*** links rural processors and farm managers with food processing research, technology and information. It is published quarterly and is available free of charge by calling Kerry Engel at 349-4465 dial 310-0000 first for toll-free access.

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Ask about our *soon to be released* fact sheets: **The Essentials of Pricing, Methods to Price Your Product** and **Pricing Processed Food Products** or **Price it Right** – a one-day workshop, February 8, 1999 in Morinville, featuring successful strategies for accessing the retail market, obtaining a product listing and pricing your product.

Contact: Kerry Engel
(780) 349-4465

Agri-News Briefs

Two Alberta students receive Dixon Memorial Scholarship

Tawnya Copland of Tees and Patricia Kozack of Camrose were the western recipients of the 1998 Dr. Allan A. Dixon Memorial Scholarship. Copland is working on her Bachelor of Science at the Augustana University College, Camrose, and Kozack is in her first year at the University of Alberta, Edmonton, working toward a business management degree in agriculture. The scholarships are presented in memory of the late Dr. Dixon, a pioneer Simmental breeder and former Canadian Simmental Association (CSA) president. Through the Dixon Memorial Scholarship Fund, four post-secondary scholarships of $1,000 were awarded. The other two scholarships were awarded to Bronwyn Crane of Kensington, P.E.I., and Leah Mitchell of Durham, Ontario. The Dixon scholarships have been presented to more than 80 students since their inception in 1976. Applications are available from the CSA Calgary office. For further information, contact Barry Bennett, CSA general manager, at (403) 250-7979, Calgary.

First Nations farm families featured in archives exhibit

Worked Steady All the Time: The Agricultural Community at Hobbema 1930 – 1960 is the title of a photographic exhibit featuring the daily farm life of central Alberta Plains Cree. These rare and intimate photographs are on display at the Provincial Archives of Alberta Gallery until March 24, 1999. Many families on the Hobbema Reserve have farmed for years. Members of the Samson, Louis Bull, Montana and Ermineskin Cree bands have made a living through ranching, rodeoing, dairy and mixed farming. Many of the images on display have never been seen outside family circles. Visitors to the archives gallery can also listen to audiotaped interviews of some Hobbema farm families. The Provincial Archives of Alberta Gallery is located at 12845 - 102 Avenue in Edmonton and is open to the public Tuesday through Saturday from 9:00 a.m. to 4:30 p.m. Admission to the exhibit is free of charge. For further information, contact Patricia Myers, project historian with Alberta Community Development, (780) 431-2300.

Finding agreement on difficult issues

A workshop intended for municipal leaders and stakeholders in Alberta's livestock industry is being coordinated by Alberta Agriculture, Food and Rural Development. Workshops will be held at several locations:

Sangudo	February 10 (registration full)
Grande Prairie	February 11 & 12
Ponoka	February 22
Claresholm	March 8 & 9 (new addition)
Red Deer	March 23 & 24

Topics to be covered include: understanding conflict; "tools" you can use to reach agreement on; collaborative decision making; and, the "why" and "how" behind decision making - what has changed? Randy Leal of Conflict Management Systems, Edmonton, will deliver the workshops. Randy is an experienced regional planner, mediator and trainer in conflict resolution. For more information, and to register, contact Tamara Lewis, Alberta Agriculture, Edmonton (780) 427-3819 or Louise Starling, Alberta Agriculture, Red Deer (403) 340-5306.

Agri-News

February 8, 1999

Serious cash for a serious subject

Essay Contest on Weed Resistance offers Scholarship

With the cost of post secondary education spiraling upwards, it's good to know that there are unique scholarship opportunities for rural youth. ***Managing the Farm for the Future*** essay contest is open to grade 12 students in Manitoba, Saskatchewan, Alberta, and the Peace River Region of British Columbia, whose parents actively farm for a living. The first prize, a $10,000 scholarship, is payable over four years of post-secondary education. The three runners-up, one from each of the three prairie provinces, each receive $2000 scholarships. Entries from British Columbia's Peace River Region will be judged with the Alberta entries.

"The contest is intended to promote good cropping practices to manage herbicide resistance," says Todd Andrews, weed specialist, Manitoba Agriculture and a member of WREAP. (Weed Resistance Education and Action Program). "WREAP is a newly formed group that is sponsoring the contest We hope the contest will increase awareness of the need for, and the value of, integrated weed management practices."

WREAP is a partnership between provincial and federal agriculture departments and industry, comprised of weed experts representing the three prairie provinces. The group's goal is to achieve a harmonized approach in communicating information related to herbicide resistance and to motivate farmers to take at least one additional step towards preventing or managing weed resistance on their farms.

"Awareness of herbicide resistance is high among farmers," says Neil Harker, weed scientist with Agriculture and Agri-Food Canada, Lacombe Research Station, and a member of the WREAP group. "Motivating action is more difficult. We're looking for essays with the power to influence farmers to take action. Messages must balance the need to generate farm income with the importance of protecting the farm's value for future generations."

"Herbicide resistant weeds have an impact on the future of farming," notes Clark Brenzil, weed control specialist, Saskatchewan Agriculture and Food. "It seemed appropriate to

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challenge our future farmers to take an active role in communicating the importance of responsible land stewardship."

Information about the contest has been mailed to schools in farming areas across western Canada. Complete contest rules are available by calling the WREAP info line at (306) 975-3609 or by visiting the "what's new" section on any of the following websites:

<www.4-h-canada.ca>
<www.cp.ca.novartis.com>
<www.farmlinepartners.com>

The 800- to 1000-word essay must be typed, double spaced and have the contestant's name on every page. Contestant's full name, address, telephone number, and the name and phone number of their school must accompany the essay as a cover sheet.

Entries should be mailed to:
WREAP Essay Contest,
122-15 Innovation Boulevard,
Saskatoon, Saskatchewan, S7N 2X8
and must be received no later than **March 15, 1999**. Winning essays will be chosen by a panel of judges comprised of representatives from the agricultural print media, scientists specializing in weed management, farmers and educators.

For more information, contact John O'Donovan, senior research scientist, Alberta Research Council (403) 632-8208; Neil Harker, weed specialist, Agriculture and Agri-Food Canada (403)782-8134; or Margaret Thibeault, AdCulture Group, Milton, Ontario (905) 875-0370 ext 303.

Contact: *Marg Thibeault*
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Farm safety part of the award winning JSSS

The prestigious national award Occupational Safety and Health (OSH) '98 Award of Excellence for innovation in product or service was awarded to the Job Safety Skills Society (JSSS) for its *Job Safety Skills for Young Workers* program. The award will be presented in Ottawa in the spring of 1999. The program was recognized as the most extensive and effective curriculum of school-based safety training in the world.

"The rural development farm safety program are proud to say that farm safety forms part of this program and is the first of its kind offered in Alberta high schools," says Eric Jones, farm safety specialist with Alberta Agriculture, Food and Rural Development. "To our knowledge, no other province or country offers such a program."

Alberta Agriculture has been involved with JSSS since 1989. At that time, a job safety skills manual was introduced and successfully piloted to four high schools: Peace River, High Level, Fairview and Hines Creek. The pilot program was then expanded into the three modules now being offered: ***Personal Safety***; ***Workplace Safety Practices***; and, ***Safety Management Systems***. The modules are packaged together and titled ***Job Safety Skills for Young Workers***. This award winning program can be found in 400 high schools across Alberta.

"This unique job safety skills training program is a recognized 3-credit complimentary course with Alberta Education under the Careers and Technology Strand," says Jones.

The accredited farm safety module was authored by Jones, a board member with the JSSS since the early conception of the safety training program for youth. Jones provides hands-on technical advice and plays an instrumental role in advising students and teachers on farm safety.

Reg Kontz, branch head of the Agriculture Education and Community Services, represents Alberta Agriculture as a sitting member on the JSSS advisory committee. Kontz provides his knowledge and expertise on future planning initiatives of the Society.

"Over 6000 students per school year, 90 per cent of whom live in rural Alberta, are eligible for the program," says Jones. "After successfully achieving the Society's mandatory 70 per cent or better passing grade, over 980 students have gained certification, duly signed by Alberta Labour's Deputy Minister."

The Society's program is also on of the finalists for the Chamber of Commerce's Alberta Award of Distinction in the strategic partnering category. This award recognized the program's successful partnership between industry, education and government.

Contact: *Eric Jones* *Reg Kontz*
(780) 427-4231 *(780) 427-4226*

Understanding predation

The coyote is the major predator of livestock in Alberta and accounts for over 75 per cent of all predation losses each year A proper understanding of predation can help livestock producers prevent or minimize livestock losses from coyotes and other predators.

"A new book has been published to help explain the ecology of coyote predation of livestock," says Bob Acorn, field inspector with Alberta Agriculture, Food and Rural Development's inspection services, Animal Industry Division, Evansburg. "The publication explains procedures used to identify predation of livestock and also describes various techniques to prevent and control livestock predation by coyotes."

Coyote Predation of Livestock is a 31-page book, containing full color photos, illustrations charts and graphs, that thoroughly covers coyote predation, non-lethal control of coyotes (including sections on flock and herd management, various forms of fencing and guardian animals) and lethal control of coyotes.

"This publication is designed as a reference guide for producers," adds Acorn. "Alberta Agriculture administers a coyote predation management program in co-operation with municipal agricultural service boards. Landholders may obtain information, advice, materials and assistance to resolve coyote predation problems from Alberta Agriculture district offices or the local agriculture service board office."

Copies of ***Coyote Predation of Livestock*** are available at Alberta Agriculture district offices and at the Alberta Agriculture publications office, 7000 - 113 Street Edmonton, AB T6H 5T6. Cost of the publication is $8 plus GST. Please add $2 plus GST for all mail orders. Phone orders can be placed using VISA and MasterCard by calling (780) 427-0391 in Edmonton and 1-800-292-5697 toll free in Alberta.

Contact: *Bob Acorn*
(780) 727-3673

Free choice minerals a problem

Providing minerals and salt free choice is very common for cows on hay rations, backgrounding calves and cattle on pasture. With straight roughage rations, there often are few practical alternatives.

"Two recent research projects indicate a great variability in consumption occurs with free choice minerals feeding," says Terry Holmgren, beef specialist with Alberta Agriculture, Food and Rural Development, St. Paul. "Research conducted in 1995 by Alberta Agriculture on pasture at Innisfail showed a very wide range of mineral disappearance with animals consuming from one to 774 grams per head per visit. Numbers of visits for minerals also varied greatly. For this trial, there were great differences between age groups, cows, yearlings and calves. Calves consumed considerably more mineral overall than the older animals. Monitoring was done by using individual electronic identification systems

Preliminary research completed at the Lethbridge Research Centre, again using individual electronic identification, also indicates problems with free choice mineral consumption Mineral supplement consumption per animal varied from 0 to 600 grams per day. The average consumption was about 90 grams, within the manufacturers recommended range.

"Consumption of molasses protein blocks was also highly variable," adds Holmgren. "The average consumption of 800 grams was within the manufacturers recommended range, but consumption varied from 0 grams to over one kilogram per day."

These research projects underline the problems associated with free choice feeding. Providing free choice minerals is certainly better than no minerals, but wherever possible, it is recommended that minerals be fed mixed with grain or included in other feeds so that consumption is more consistent.

Contact: *Terry Holmgren*
(780) 826-3388

The 19th annual horse conference

On January 8 to 10, 1999, over 500 horse enthusiasts converged on Red Deer to attend the 19th annual Horse Breeders and Owners Conference.

Internationally respected speakers covered a range of topics dealing with nutrition, exercise and training, conformation, the newest horse-shoeing techniques, reproduction, the equine market, equine safety, equipment and tack. The conference is an opportunity for Albertans involved in the growing horse industry to hear the newest information the industry has to offer and socialize and network with others in the Alberta equine community.

"The conference is the place to be to learn, socialize and meet other people in the industry," says Les Burwash, manager of equine programs with Alberta Agriculture, Food and Rural Development and a member of the conference organizing committee. "It's important for Albertans to keep up with new research and the direction this industry is headed."

Alberta's reputation for producing excellent performance horses is growing and the goals set by equine associations and individual breeders indicate that the industry certainly on the right track in the province. Education and research are part of reaching that goal.

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The conference, coordinated by the horse industry section of Alberta Agriculture, Food and Rural Development, receives critical acclaim each year from attendees as well as invited speakers and presenters.

Along with Burwash, conference organizers Doug Milligan, head of the pork, poultry & horse branch with Alberta Agriculture, Food and Rural Development, and representatives from provincial breed associations make sure the sessions cover current issues and topics that concern and interest Alberta horse breeders and owners. The invited speakers are always experts in their chosen fields, recognized internationally by the horse industry.

The annual conference is supported by a number of sponsors: Alberta Equine On-Line, Alberta Quarter Horse Racing Association, Canadian Dehydrators Association, Champion Feed Services Ltd., Diamond V Mills Inc. Yeast Culture, Equi-Master Inc., Equiphlex ™ Mineral Supplement, Horse Publications Group, Horses All, The Jones Boys Saddlery and Western Wear, Masterfeeds, Merial Canada (Equalan), Minitube Canada, Northern Horse Review, Olds College, Pacific/Prairie Horse, Trail Riding Alberta Conference, United Farmers of Alberta (UFA), Western Riding Coaches of Alberta, Wild Rose Equine Ranching Association (N.A.E.R.I.C. member), the Alberta Society for the Prevention of Cruelty to Animals and Alberta Agriculture, Food and Rural Development.

"Our sponsors are instrumental in making the conference such a success," says Burwash. "As in years past, a donation from the conference proceeds will be made to the Equine Health Research Fund at the Western College of Veterinary Medicine, Saskatoon. The college is a leader in equine research. Their research findings are always available and of value to all horse owners and breeders. Again this year, because of the tremendous response, we'll be sending a donation to support the college and help fund equine research.

"The conference organizers would like to extend a special thank you to Sandy Clarke, Alberta Agriculture; Shirley Sommert Ogden, Alberta Agriculture; Sharon Tomlinson, Canadian Thoroughbred Horse Society; and, Joanne Wright, Olds College, for supporting the event by coordinating and managing registrations."

The Horse Owners and Breeders Conference is held each year in January. It has become known as one the premier horse conference in North America. Several speakers are already confirmed for next year's event on January 7 to 9, 2000.

Contact:	*Les Burwash*	*Doug Milligan*
	(403) 948-8532	*(780) 427-4589*

Colostrum – essential disease protection

As calving season gets into full swing, colostrum is often the subject of discussion between producers, beef specialists and veterinarians.

"Colostrum is the thick, yellowish milk produced in the mammary gland a few days before and after calving," says Bill Grabowsky, beef specialist with Alberta Agriculture, Food and Rural Development, Wetaskiwin. "It is so important that it can mean life or death to the first born calves. Unlike human babies that receive disease protection before birth, calves are born without disease protection. The protection, in the form of antibodies, comes from the mother's colostrum, or 'first milk'. Concentration of the antibodies is greatest at calving and decreases quite quickly over a period of a few days."

Most importantly, the ability to absorb the antibodies in the blood decreases to almost nothing as the young calves reach 24 hours of age. The number of antibodies a calf obtains depends a lot on the concentration of antibodies in the colostrum, the volume the calf consumes and the age (in hours) at which it is ingested.

"Producers can increase the odds of their newborn calves getting colostrum in a couple of ways," says Grabowsky. "Colostrum is best received from older cows. Heifers produce colostrum containing low levels of antibodies since they haven't been exposed to as many disease organisms as cows have. If may be advisable to feed 'first-calf' heifer's calves colostrum collected from an older cow. Producers are freezing this colostrum and force feeding the warmed product to calves as soon as they are born. This first six hours is the best time to feed, in fact, if possible, the first 30 minutes is even better."

The ideal amount of colostrum to feed can be calculated as five per cent of the calf's body weight. For a 90 pound calf, two litres should be fed in the first six hours and another two litres in the next six hours.

"Colostral immunity lasts for several weeks or longer," adds Grabowsky. "The calf's own immune system takes over from that and, as every producer hopes, this immunity will be able to overcome infectious organisms the calf may be exposed to."

To help young calves gain immunity through the use of colostrum: ensure that the cow herd is on a proper vaccination schedule, keep the cows' body condition scores above a 'three' and be sure that calves get that 'first milk' as soon as possible after birth.

Contact: *Bill Grabowsky*
(780) 361-1240

Choosing a field pea variety

Every year, the discussions over variety choice start earlier and include more information on what's new, what's hot and what's not. When choosing a field pea variety, there are several questions a producer should ask.

"Probably the first question is whether to choose green or yellow pea seed," says Terry Buss, pulse and special crops specialist with Alberta Agriculture, Food and Rural Development, Vermilion. "This simple color choice divides peas into two large groups. The choice will depend on where the producers future market opportunities will be. If choosing green, the producer is likely looking at selling into human consumption markets. For these markets, bleaching is a big concern and there are questions that must be honestly answered. Is the producer willing to spend the necessary funds and do they have the skills to produce green peas with excellent color? Is there a green variety that has good green color retention that grows well in the area in question?"

While green peas are the norm for human consumption markets, there are yellow human consumption markets that are worth exploring as well.

Is the crop destined for feed or human consumption? While this question may be addressed by the color choice, the decision to grow human or feed peas will effect management practices and costs. Is there enough of a premium for human consumption peas to make the extra work and costs worth the effort? If in the end, the crop doesn't make human consumption grade, will the feed price be acceptable?

"Different varieties of peas have different levels of harvesting ease, producers need to determine how important factors like standability are to their operation," adds Buss. "Producers must determine whether or not they can tolerate some lodging if a variety has other attractive characteristics. Often if standability is important to a grower, it is usually considered before yield."

Yield is certainly a key factor when deciding on a variety. New varieties are often hard to assess from the information available. When evaluating new varieties it's important to determine if the information comes from sites located close to the area where the seed will be planted or at least was gathered in areas where similar soil and weather conditions prevail. How the information was gather and whether the information is credible must also be determined.

In Alberta the length of the growing season can vary and the variety chosen must match up to the number of degree growing days, moisture and soil conditions in the area," says Buss. "It may be important to consider sticking to varieties that normally mature sometime in August or very early September if planted in the first or second week of May Climate and phosphorus nutrition of the plant will play a great role in maturity timing."

Each producer must decide what things are desirable in a variety. Some feel that a very round and uniformly sized pea gives a market advantage, others prefer small-seeded peas because of limitations on their seeding equipment. For others, varieties that are powdery mildew resistant are important Taking the time to gather good reliable information is the first step in choosing the variety.

Producers are encouraged to contact their local pulse and special crop specialist if they have questions or concerns

Contact: *Terry Buss*
(780) 853-8240

National Library of Canada
Bibliothèque nationale du Canada
3 3286 51733 1100

AgVenture workshop, rescheduled

The date for the AgVenture workshop in Brooks has been rescheduled to March 25th, 1999. The theme is ***Small Can Be Beautiful***, the workshop will focus on fruits and vegetables, greenhouse crops and special crops. Information will be included on processing and value added food products and direct marketing skills. For more information on this workshop call Jan Warren with Alberta Agriculture at (403) 485-2236, the Medicine Hat district office at (403) 529-3616 or Julie Kennett with PFRA at (403) 292-6745. The theme of the Bow Island workshop scheduled for February 23rd is ***Opportunities in Alternative Crops***. New opportunities in irrigated alternate crops such as potatoes, beans, sugar beets and special crops is the focus. Production, marketing and processing will be discussed. Contact Julie Kennett at PFRA (403) 292-6745 or the Medicine Hat District office (403) 529-3616 for more details. If interested in organic farming, culinary and medicinal herbs, chickpeas or other crops that require non-traditional marketing techniques, plan on attending ***AgVenture Options*** in Vulcan, February 25th. The workshop focuses on skills needed to assess a new AgVenture. Call Jan Warren at (403) 485-2236, Vulcan, for further information.

Devonian Botanic Garden's '99 course information

The January to July 1999 course brochure from the University of Alberta's Devonian Botanic Garden (DBG) is now available. Course topics ranging from pruning, herb gardening, starting a nursery business, greenhouse production to pond raising of rainbow trout are offered through the DBG. Most courses are scheduled in the evenings or are one or three consecutive Saturdays in length. From tissue culture to creative crafts, the DBG offers a wide range of course to suit the outdoor inclined. For further information or to receive a copy of the Courses and Education Program brochure, contact Rosanne at DBG (780) 987-3054.

Fairview College horse sale

The Fairview College is holding their ***Second Annual Spring Spectacular Horse Sale*** on March 20 at 1:00 p.m., with viewing times from 9:00 a.m. to 12:30 p.m. On offer are the 1998/1999 Fairview College equine program horses. College horses have six months of training by students under the direction of Wendy Ross. There will be a total of 60 horses in the sale -- 16 College horses, 15 AQHA mares and geldings in a full range of colors, and one APHA gelding. Consigned horses come from all breed registries. All horses at the sale are of top quality. The College welcomes all interested to come to the sale. For more information, contact Ryan Cumberland at (780) 835-6702, Fairview, during the day or Wendy Ross at (780) 494-2527, Hines Creek, evenings.

Agri-News

February 15, 1999

Farm computers and Y2K compliance

By now most Albertans have heard about the year 2000 bug in computers, commonly known as Y2K. Comments and articles, ranging from a passing fad to the best excuse to stock up on fuel, batteries and move to Montana, can be found on the internet and in magazines and news articles.

"The technical facts about Y2K is what is important to farmers right now," says Graham Gilchrist, farm management specialist with Alberta Agriculture, Food and Rural Development, Vegreville. "Recently, *PC World* magazine ran a good technical article on Y2K and that is the type of information that farmers need to get their hands on. Y2K can be a problem with farm computers in four ways: it can hit hardware (clock, etc), commercial software, custom applications or can cause problems when exchanging data."

The internal clock - in short a computer gets it's date from two sources. Computers store a file in their built-in operating system (B.I.O.S.) called a century byte (19). The real time clock gives the second two digits (xx) and when combined you get 19XX. If Y2K isn't corrected, at January 1, 2000, the century byte will deliver *19* and the real time clock will deliver *00*.

If a computer was built prior to 1997, chances are the clock will deliver 1900. For computers built after 1997, the clock will indicate it's 1980 or 2000. If it reads 1900 or 1980, then there is a problem and two things need to be done. First - upgrade the B.I.O.S., and if that can't be done, the other option is to buy a new computer.

Commercial software - this is software packages like Microsoft Office or Corel Draw, and so on. Software that was designed to run on Windows 3.1 (16 bit) is not being upgraded. This means that updated versions are needed to run correctly.

"The other problem can be what is called a pivot year," says Gilchrist. "If a date is entered in a spreadsheet called Excel, Excel makes some assumptions on date. If *00* or *29* are entered in a date cell, Excel assumes 1/1/2000 to 1/1/2029. But if you enter *30*, Excel assumes 1/1/1930.

"The first suggestion is to change the clock in Windows to a long date (m/d/yyyy) in the control panel. Other than that, there is no real defence except check all data."

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Custom applications - custom-built software or software particularly designed for an industry, has the most to lose. Inventory could and likely would be destroyed and it may be difficult to find a person to fix the particular program.

The first check is to get a Y2K certificate from the vendor. Test the software on a stand alone computer with dummy data. The final solution may be to replace the software.

Exchanging data - even after upgrading, checking and securing a computer for Y2K, sharing a file from a client or colleague who has not upgraded to Y2K, can crash a system. One solution is to run all files through a program to check for Y2K, not unlike a virus checker.

Internet sites for further information are:

- www.2knews.com
- www.year2000.com
- www.vendor2000.com
- www.microsoft.com/technet/topics/year2k

Government tax breaks - if a new Y2K computer and software between January 1, 1998 and June 30, 1999 has been purchased, the purchaser may be eligible for a 100 per cent depreciation expense in the year the system was purchased. Discuss this depreciation item with an accountant for the appropriate way to make the claim.

Contact: Graham Gilchrist (780) 632-5400

Deadline extended for comments on regulatory framework for animal feeding operations

Albertans have more time to submit comments on a proposed new regulatory framework for livestock feeding operations (LFOs) in the province. The deadline for submissions was extended from February 5, 1999, to March 1, 1999.

The document is in the second stage of consultations on regulatory options for livestock operations. The framework could serve as the basis for new legislation and regulations governing LFOs in Alberta, with the ultimate goal of clarifying good agricultural practices and working with producers to ensure a long-term, sustainable agriculture industry.

Livestock feeding operations are defined as areas where animals are confined for feeding purposes in a constructed facility and do not include grazing situations.

The framework was developed by a Stakeholder Advisory Group, formed by the Minister of Agriculture, Food and Rural Development, following extensive public consultations held around the province during April, May and June, 1998.

"This is a consensus-building exercise," says Aaron Falkenberg, co-chair of the Stakeholder Advisory Group and a producer. "As such, stakeholders need more time to respond to the framework proposal."

The first round of consultations solicited comment on several different proposals for regulatory options for livestock feeding operations. The Advisory Group has been assisting the province in reviewing comments received and developing a regulatory framework.

The document outlining the proposed new regulatory framework contains several requirements for an improved regulatory system. It makes provisions for:

- uniform operational standards and performance criteria to create a level playing field across the province;
- rules and standards that are realistic, achievable and enforceable;
- addressing existing operations, so they don't pollute;
- technical experts to evaluate the technical aspects of an operation and,
- municipalities continuing to make land use decisions.

Copies of the ***Proposed Regulatory Framework*** are available at all Alberta Agriculture district offices or by calling (780) 422-2070 (toll-free in Alberta by first dialing 310-0000). Copies are also available on Alberta Agriculture's website at: http://www.agric.gov.ab.ca/economic/policy/ilo/index.html

The document includes a short, postage-paid reply form.

Contact: Wayne Inkpen (780) 422-2070
Aaron Falkenberg (780) 718-1796
Maureen Barnes (780) 427-4369

Weed control, a critical step in producing field peas

In field peas, weed control either makes or breaks the crop.

"Field peas are not competitive and need more attention when it comes to weed control than any of the other major crops we grow," says Terry Buss, pulse and special crops specialist with Alberta Agriculture, Food and Rural Development, Vermilion. "Thinking about where to put peas can give a producer an idea of what to expect. Most importantly are the steps taken to eradicate perennial and winter-annual weeds from the field before seeding."

Peas are very susceptible to damage from many of the broadleaf herbicides. Because of this, field pea herbicides are applied at high water rates or low herbicide concentrations. This means that the most effective control of broadleaf weeds occurs if sprayed when the weeds are still small. The best time to use

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herbicide controls is when weed seedlings are no bigger than a loonie, or at the two- to four-leaf stage.

"The early emerging weeds compete well with pea crops and result in yield losses," adds Buss. "The later emerging weeds can also decrease yield, but, at least the crop plants are larger and have a better chance of competing. Peas don't compete well and they have a much better chance against small weeds than larger, more advanced ones. Producers concerned about continual flushes of weeds, such as cleavers and chickweed, may want to consider using a herbicide with at least a season-long residual."

Field pea chemicals are expensive. It's important to know if the right products are being used for the weeds actually present in a particular field. While there is a tendency to use the herbicide option that kills the greatest variety of weeds, knowing what weeds are present may help producers select more cost-effective herbicides.

"Knowing what weeds are or may be present in a field, means taking the time to scout fields properly," says Buss.

For more information about weed control in field peas, contact the Alberta Agriculture pulse and special crops specialist in the area.

Contact: Terry Buss (780) 853-8101

Nutritional misinformation

Eve, the Snake and the apple - Nutritional Misinformation throughout the Ages is the topic Helen Bishop MacDonald will be addressing in Red Deer on February 26, 1999. MacDonald will cover nutrition myths that were popular 1000 years ago and myths that span the ages and will accompany our society into the new millennium.

"Butter verses margarine; when cookies are a nutritious snack; and, the connection between breast cancer and skim milk: these are just some of the issues MacDonald will touch on," says Leona Staples, Alberta Home Economics Association (AHEA), Calgary. "MacDonald has a colourful and diverse career history including nutritionist for the Calgary Flames, the '88 Olympics, nutrition columnist for *Canadian Living* magazine, lecturer at Mount St. Vincent University and Dalhousie University. She is author of ***Eating for the Health of It*** and co-author of ***The Total Fibre Book***, with Marg Fraser, and ***Eat Well, Live Well, the Canadian Dietetic Association's Guide to Healthy Eating***, with Marg Howard. MacDonald is currently director of nutrition with the Dairy Farmers of Canada."

The presentation on February 26 from 7:00 p.m. to 9:00 p.m. is being held in the Red Deer Regional Hospital Auditorium. Admission is $5, payable at the door. AHEA and Dietitians of Canada are sponsoring the event and all proceeds go to the Red Deer area Meals on Wheels program.

For more information about Eve, the Snake and the Apple, contact AHEA at (403) 227-6020

Contact: Leona Staples (403) 227-6020

January — near normal

The January provincial average temperature was 0.6 degrees C above normal and Alberta's average precipitation of 22.2 mm was 0.9 mm below the 1961 to 1990 normals for January

"January's temperatures were quite different from a year ago when average January temperatures were 4 degrees colder," says Peter Dzikowski, agricultural weather resource specialist with Alberta Agriculture, Food and Rural Development. "Provincial averages, however, hide the differences that occurred across the province. Northern regions reported wet and cold conditions. The northwest region received 37 per cent more precipitation than normal and the Peace region was 0.8 degrees colder than normal. Southern regions were warm and dry, with temperatures 2.3 degrees warmer than normal and precipitation 41 per cent below normal."

Alberta experienced unseasonably warm weather in the first week of January, with temperatures close to the freezing mark in many southern regions. In the second week, an Arctic front descended on the province, causing a rapid drop in temperatures. This was followed by another warm spell in the third week of January, when temperatures in Lethbridge reached as high as 10 degrees C.

Milk River reported temperatures 4.9 degrees above normal, the highest temperature departure in the province.

Elk Island reported the highest precipitation, 48.1 mm, over twice the 1961 to 1990 normal of 20 mm. Esther was the driest spot in the province with 6.4 mm of precipitation.

The provincial averages are based on data recorded at 54 Environment Canada climate stations across Alberta.

Contact: Peter Dzikowski (780) 427-3594

A growing concern

Alberta's market garden industry continues to expand, both in acreage and number of growers involved.

"The public's demand for fresh, wholesome, quality fruit and vegetables is the driving force behind this expansion," says Lloyd Hausher, fruit crops specialist with Alberta Agriculture, Food and Rural Development. "Most producers either sell pre-picked produce at the farm gate, at one of Alberta's many farmers' markets, or allow customers to harvest their own produce directly from the field. This provides consumers the freshest and choicest of fruits and vegetables. Many growers also give customers a choice of pre-picked or pick-your-own."

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Market gardens range in size from one to 50 acres with most farms sized at two to five acres. Some gardens may only grow one type of fruit crop or only vegetables, while most of the producers grow a mix of fruit crop types or both fruits and vegetables.

Market garden producers with common interests and concerns united in 1985 and formed the Alberta Market Gardeners Association (AMGA). The goals of the Association are education of their members; promotion of the industry; supporting the industry through funding research projects and a lobbying voice for its members and industry.

"Besides sponsoring educational seminars and tours, bulk ordering plants and materials for members, the Association hires a promotion manager who visits trade shows, helps members with market plans and assembles an annual listing of members, their produce and directions to their farms," adds Hausher.

The *Come to Our Farm* directory is available at all Alberta Agriculture district offices, Alberta Agriculture's publications office, 7000 - 113 Street, Edmonton and distributed at many sites throughout the province. The AMGA also mails the directory to Albertans on their consumer list. To receive a copy by mail, Albertans can phone in a request to the Association's toll free line at 1-800-661-AMGA (1-800-661-2642).

Many people are concerned with the food they eat. Getting to know the food producers, such as the local market gardeners, is becoming more important.

For more information on the AMGA or a membership contract, contact AMGA, c/o CDC South, SS4, Brooks, Alberta T1R 1E6 or phone Judy Butt, AMGA promotions at (780) 826-1709 or Lloyd Hausher, AMGA secretary, (403) 362-1309.

Contact: Lloyd Hausher (403) 362-1309

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Agri-News Briefs

Prairie water news

The Winter 1998 issue of Prairie Water News (PWN) is now available at all Alberta Agriculture, Food and Rural Development district offices. This issue deals with subjects such as: water sampling, analysis and interpretation; results from a dugout aeration study; electric logging - a valuable water well drilling tool; membrane filtration pilot plant study; environmental monitoring on the Assiniboine Delta aquifer; and, duckweed: not just for ducks. PWN is published semi-annually and is co-sponsored by the Saskatchewan Research Council, Alberta Agriculture, Manitoba Environment, Sask Water, Environment Canada and Prairie Farm Rehabilitation Administration (PFRA). PWN provides information to help rural people across the Canadian Prairies with their water problems. Prairie Water News is a free publication. For more information, contact Bob Buchanan, agricultural water specialist, Alberta Agriculture, Food and Rural Development, Leduc, at (780) 986-8985.

Livestock diversification conference

The February 24, 1999 conference at the Rocky Mountain House community centre will address the challenges and risks and investigate the opportunities in the bison, elk and white-tail deer industries. Production highlights, marketing opportunities, challenges facing the industry, business planning strategies and financing criteria for specialty livestock enterprises will all be discussed. Conference fee is $25 per person. For more information, contact Jane Brown, Alberta Agriculture, Food and Rural Development, (403) 845-8200, Lacombe.

Forage insurance

Alberta forage producers know how dry years can affect production. Agriculture Financial Services (AFS) offer four different coverage levels producers can choose from. Forage insurance is flexible enough to fit any farm. In most areas, forage insurance protection from AFS costs as little as 50 cents an acre. The deadline for Forage Insurance is February 28, 1999. Producers should call the local district office of AFS as soon as possible to enquire about forage insurance coverage.

Agri-News

February 22, 1999

Alternative livestock stats

The diversified livestock industry in Alberta has expanded rapidly over the last few years and shows promise of continued growth. Requests for current statistics of live animal numbers and provincial and federal slaughter numbers for diversified livestock species have resulted in the publication of ***Diversified Livestock Statistics for Alberta – 1998***.

"This new report provides a provincial and regional breakdown of current live animal and producer numbers as of Fall 1998," says Suzanne Randall, consultant contracted by Alberta Agriculture, Food and Rural Development, to complete the study. "Data in the report includes statistics on: alpaca and llama, aquaculture, bison, white-tailed and mule deer, goats, elk, emu, ostrich, rhea and wild boar."

A breakdown of slaughter numbers in Alberta from provincial and federally inspected facilities for these species is also included along with an overview of the processing facilities working with these diversified livestock species.

"The compiled data provides the number of animals and producers per species and the distribution of the animals and producers on both a provincial and regional basis," says Randall.

Information on animal and producer numbers indicate:

- there has been a continual increase in industry growth for alpaca, llama, bison, deer and elk over the past few years
- aquaculture has gradually increased in the number of commercial fish producers and recreational licence holders, however, no count of fish numbers is available
- the wild boar, meat goat and dairy goat industries forecast expansion with the development of markets and products
- the ratites – rhea, emu and ostrich – have experienced some decline in animal and producer numbers over the past few years.

"As well as being a statistical benchmark, the compiled data includes a breakdown of the facilities presently working with diversified livestock species," says Elton Dunk, marketing manager, diversified livestock, Alberta Agriculture, Food and Rural Development. "The report provides a general indication of processing facilities interest in working with diversified livestock species and in the production of value-added products."

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Alberta
AGRICULTURE, FOOD AND
RURAL DEVELOPMENT

The easy to read report, devotes sections to the various species and gives specific information on each. Each species section includes: industry highlights, regulatory basics, and animal and producer numbers.

Copies of the report are available at all Alberta Agriculture district offices or by calling Alberta Agriculture's Animal Industry Division at (780) 427-2166.

Contact: *Elton Dunk*
(780) 427-4546

Doug Bienert
(780) 427-4616

One million people just 100 km away!

Most people don't believe it when they hear that Albertans represent 70 per cent of travellers within Alberta and 49 per cent of all expenditures. Many rural areas are within one to two hours of a population base of more than one million people. Seventy per cent of urban people are looking for shorter, more frequent vacations and outings. They want quality, family oriented activities and don't want to be bothered with the dollar exchange rate.

"The question agri-tourism entrepreneurs in Alberta need to ask themselves is what can they offer to their urban neighbours," says Kerry Engel, rural development specialist – business with Alberta Agriculture, Food and Rural Development. "Would-be entrepreneurs should start with a quick assessment of the available facilities and space. Knowing what outdoor experiences can be offered is a good first step. Activities such as, touring, skiing, visiting family & friends, golf, snow mobile rallies, business retreats, u-pick produce farms, farm stores, trail riding, wild boar hunting, festivals, community events, country/ranch vacations and Bed & Breakfast operations are the types of activities urban Albertans are looking for during weekends or weeks away from the cities."

Once business operators know what services they can offered, marketing and networking become very valuable skills and tools. Marketing is a difficult challenge for many agri-tourism destinations. The internet is often the first place many vacationers look for information. It's possible to find campsite, restaurant and special event information on-line. The internet has become a valuable tool for tourist around the globe and in Edmonton, Red Deer, Calgary, Lethbridge and Alberta's other cities.

"Knowing what information to put on a website is important," says Engel.

Farm vacation spots, bed and breakfast operations, campgrounds or farm tours should include the following information on their webpage:

- location of the farm and how to get there;
- photos of facilities and features;
- description of facilities;
- dates and/or hours open;
- available dates (updated regularly);
- prices and fees in both Canadian and US dollars;
- what's included in the package;
- rules and regulations (for health and safety reasons);
- whether or not pets and children are welcome;
- are there animals/pets on the farm;
- a list of things visitors should bring;
- things not to bring (ie. guns);
- applicable regulations and dates (ie for out-of-province fishermen and hunters);
- things to do and local attractions;
- internet links to local attractions (golf courses) and events (fairs);
- internet links to provincial and federal tourist information;
- on-line booking if possible;
- a guest book and a visitor counter;
- contact information – mail, phone, fax and email;
- information on the nearest international airport.

"Networking is a valuable skill for people interested in agri-tourism," adds Engel. "Farming is a business and a way of life. Agri-tourism is a branch extending from the strong trunk of agriculture."

Contact: *Kerry Engel*
(780) 349-4465

Targeting the farm safety message

Consultation with teachers at Hutterite schools in Alberta, prompted the farm safety program of Alberta Agriculture, Food and Rural Development to address the urgency for a farm safety booklet designed specifically for Hutterite children.

The project is being co-sponsored by two companies, Pfizer Canada Inc. Animal Health and Precision Metal Fabricating Ltd. These companies have joined Alberta Agriculture in this venture to promote farm safety.

"We are ready to launch a new campaign using the theme ***A Safe Farm is a Great Place to Grow*** with school children in Hutterite communities," says Solomon Kyeremanteng, head of Alberta Agriculture's farm safety program. "We are asking the kids to tell us the things they do that make their colonies a safe place to grow."

Children are encouraged to submit as many entries as they like. Winning entries will be used in a new publication ***Leut to Leut – A Safety Guide for Colony Kids***.

Cont'd on page 3

"By drawing a picture, making a display or writing an article or story about making their colony a safe place to live and grow, the children get a chance to win fabulous prizes from Pfizer Canada Inc., Precision Metal Fabricating Ltd and Alberta Agriculture for themselves and their schools," adds Kyeremanteng. "This is a school project. There are over 150 Hutterite schools in Alberta and we hope to receive an entry from each of them."

Entry deadline is March 31, 1999. Teachers at colony schools are asked to mail the school's entries to:

Alberta Agriculture, Food and Rural Development
Farm Safety Program
#201, J.G. O'Donoghue Building
7000 - 113 Street
Edmonton, AB T6H 5T6

"We care about the safety and health of our customers and their families," says Norm Castator, area sales manager, western region, Pfizer Canada Inc. Animal Health, Calgary.

"Safety is a primary concern on the job and on the farm," says Loren Katzenberger, president of Precision Metal Fabricating, Saskatoon, Saskatchewan. "We are pleased to be working with Alberta Agriculture and Pfizer to promote safe farms and safe farm practices."

"Safety is a message that can never be stressed too often. We are very pleased that Alberta's Hutterite children are becoming involved in this important safety campaign," says Kyeremanteng.

Contact:	*Solomon Kyeremanteng*	*Loren Katzenberger*
	(780) 427-4227	*(306) 955-3700*
	Norm Castator	
	(403) 818-7703	

Alberta intercollegiate & 4-H judging competition

On February 27, 1999, the University of Alberta Multi-species Judging Club is hosting the fourth annual multi-species judging competition. Many 4-H and college teams from across western Canada will display their judging ability by evaluating and comparing 10 different plant and animal species.

"4-H has always placed great importance on judging skills," says Carol Sullivan, provincial 4-H communications and marketing specialist with Alberta Agriculture, Food and Rural Development. "Nothing tests knowledge quite like the experience of taking all of the information gathered and actually applying that knowledge by judging an animal or plant."

In the last years, the UofA intercollegiate and 4-H judging competition has shown tremendous growth. This year, approximately 100 individuals will test their knowledge of the various plant and animal species and the top scoring individual will be named the 1999 UofA Alberta Intercollegiate Judging Competition's top judge. The UofA Multi-species Judging Club consists of 25 former 4-H members. The competition will be held at the Edmonton Sportex in Northlands Park beginning at 9:00 a.m., on February 27.

"Agricultural organizations and all Albertans are invited to attend the event," adds Sullivan. "It should be an entertaining, educational and fun day."

For more information or to participate in the event, contact Owen Nelsen at the Uof A, (780) 432-5117.

Contact:	*Carol Sullivan*	*Owen Nelsen*
	(780) 422-4H4H	*(780) 432-5117*

Environmental summer camp

Imagine sharing 143 acres with over 100 species of wildlife, exploring 65 million year old bedrock and hiking through trails of fern glade forest for as far as the eye can see. This opportunity at the Environmental Summer Camp at the Alberta 4-H Centre in Battle Lake is available to young Albertans aged 9 to 12 during the week of August 22 -26, 1999.

"The Environmental summer camp provides the luxury of home cooked meals, hot showers and warm bunks combined with a natural lakefront setting where an appreciation for the environment is deeply rooted," says Danielle Warren, program administrator for the 4-H Foundation of Alberta. "The week will be filled with activities that will help youth find skills and strengths inside themselves they never knew they had."

For more than 20 years, the Alberta 4-H Centre has offered youth camps and environment camps. The Centre is a year round environmental education facility located one hour southwest of Edmonton.

"Some of the activities available at the Environmental Summer Camp include: swimming, creative crafts, camping, skills group activities, games, leadership skills, archery, friendships, canoeing, campfires, hiking and nature studies and initiative tasks," adds Warren. "Qualified and experienced staff with appropriate certification deliver the programs. Supervision is provided 24 hours per day."

The Alberta 4-H Centre is a safe, clean facility with staff members trained and certified in Standard First Aid and CPR. The Alberta 4-H Centre is owned and operated by the 4-H Foundation of Alberta and is accredited by the Alberta Camping Association.

Registration fee for the program is $159.00. This includes all meals, accommodation, instruction and supplies.

For more information or to register for the Environmental Summer Camp, contact the 4-H Foundation of Alberta at (780) 427-2541, fax (780) 422-7755 or e-mail danielle.warren@agric.gov.ab.ca.

Contact:	*Danielle Warren*	*(780) 427-2541*

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Agri-News Briefs

AMP awards two central Alberta dairy farms

The Alberta Milk Producers (AMP) recognized two dairy farms from central Alberta for milk quality and dairy farm beautification at the annual Alberta Dairy Industry Convention in Calgary on February 2, 1999. Peter Bigler, Red Rock Farms, located near Alix, received the AMP Provincial Milk Quality award. The decision was based on milk quality data compiled by Alberta Agriculture, Food and Rural Development. Red Rock Farms was one of 127 Alberta dairy farms, honoured with a certification for producing milk of superior quality. Results from the Dairy Farm Beautification Competition were also announced at the convention. Marlawn Farms, located near Sylvan Lake, won top awards in this competition as a result of their success in demonstrating excellence on the dairy farm. For further information, contact Cheryl Robb, communications specialist with AMP (780)453-5902 or toll free in Alberta, 1-800-252-7230, ext. 305.

Western Canadian Dairy Seminar

Commercial dairy producers, researchers, agribusiness, service and supply representatives, extension and education specialists, and those interested in the latest information in dairy production and technology are invited to attend the ***1999 Western Canadian Dairy Seminar***. A full agenda and an impressive line-up of speakers is planned for this seminar being held on March 9 and 10 at the Capri Centre, Red Deer. The primary objective of the seminar is to inform and challenge members in the dairy industry to take a lead role in developing the industry through the adoption of the latest technology and information available. Session topics include: breeding for profit in the new millennium; management and health; managing breeding and reproduction for profit; nutrition and management; principles of a good herd health program, strategic parasite control; and, creating a positive environment for humans and animals. Registration fee is $200 per person (plus GST). The one-day fee is $90 (plus GST). Student registration fee is $55 (plus GST). If unable to attend the seminar, copies of the proceedings will be available. Please send $35 (includes GST) to the 1999 Western Canadian Dairy Seminar, Dept. of Agriculture, Food and Nutritional Science, 4 - 10 Agriculture/Forestry Centre, University of Alberta, Edmonton, AB T6G 2P5.

Livestock Care Conference '99

The Livestock Care Conference '99 is being held at the Sheraton Cavalier Hotel in Calgary on March 12, 1999. The theme of this years conference is *Taking the Offense on Animal Welfare*. The conference is organized by Alberta Farm Animal Care (AFAC) and Alberta Agriculture, Food and Rural Development. "This conference provides the chance to learn from others about their offensive strategies to deal with animal welfare concerns," says AFAC Chair, Peter Schuld. Highlights of the conference include sessions such as: Animal Rights – Everyone's concern, Patricia Guyda, president of Canadians for Health Research; The Equine Ranching Industry – Taking Action, Norm Luba, executive director of North American Equine Ranching Information Council (NAERIC); Newfoundland's Fishing Industry – Taking Action, John Efford, Minister of Fisheries and Aquaculture for Newfoundland; and Responsible Animal Handling, a presentation by representatives from Alberta's major beef, hog and poultry processing companies. Registration is $75 (includes GST). So participants can learn more about AFAC, all AFAC projects will be on display in the conference room. For more information or to register, contact AFAC at (403) 932-8050 or e-mail **afac@cadvision.com**

Agri-News

March 1, 1999

Success is a Green Certificate

When Pam Suddaby is asked about the Green Certificate Program her comments are all positive. "I've always lived around Angus cows," says Suddaby, a St. Mary's High School student, Vegreville. "Not many people understand the complexity of their anatomy and needs, and I didn't either, until I started the Green Certificate Program."

The Green Certificate Program is operated by Alberta Agriculture, Food and Rural Development in partnership with the farming industry and Alberta high schools. It allows high school students in Alberta to gain career skills through apprenticeship-style training in a practical and hands-on way.

"I have only been in Green Certificate for a short time, but I've learned many things," Suddaby continues. "It is an amazing experience to watch a baby calf being born and know that without all of the careful planning, there might not have been one."

The Green Certificate Program currently has 572 trainees (464 high school students and 108 adults) in 93 schools in Alberta. It offers career skills in cow-calf, dairy, feedlot beef, field crop, irrigated crop, sheep and swine production areas.

"Through the Green Certificate Program, Alberta Agriculture, Food and Rural Development, Alberta Education and the agriculture industry partner to make this program possible. The program helps bridge the gap between work and school for young people interested in a career in agriculture or agri-food," says Robert Hornbrook, Green Certificate supervisor with Alberta Agriculture, Food and Rural Development. "The program is an exciting way to make school more relevant for many young people and to assist them in finding rewarding careers. By starting workforce development early, the industry is laying down the foundation for the skilled and motivated workforce they need to be competitive in the future."

"The Peace Wapiti School Division was the first school division partnered with Green Certificate," comments Darwin Eckstrom, deputy superintendent of the Peace Wapiti School Division. "There are over 100 students in the division currently in the program. We encourage and try to get our students involved in 'life-experience' studies. The more opportunities they have, the better prepared they are."

The Green Certificate Program provides an opportunity for seamless integration into post-secondary education. Students

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who have completed the Green Certificate Program can receive advance standing in Alberta colleges. For example, Fairview College gives Green Certificate graduates credit in their agriculture diploma program for either AC 120 Introduction to Field Crops (4 credits) or AL 120 Introduction to Livestock (4 credits) plus AM 100 Machinery Use Skills (1 credit). The agriculture diploma can then be used as a stepping stone for continuing on with an agriculture degree at the University of Lethbridge.

"The Green Certificate Program helps students understand and reflect on the practice of farming," adds Eckstrom. "The Green Certificate is an excellent program."

For students who have a career interest in agriculture or agri-food, are at least 15 years old and are able to locate a cooperative training site and trainer, which may be their home farm, the Green Certificate may be part of their high school curriculum that is well worth exploring.

For more information, Alberta Agriculture's Green Certificate Program is available on Alberta Agriculture's website at **http://www.agric.gov.ab.ca/** or Alberta Education's website at **http://www.edc.gov.ab.ca/**

A teacher information pack and a video explaining the Green Certificate are also available upon request.

For more information, contact a regional Green Certificate Field Officer:

• Southern region Lethbridge	John Calpas	(403) 320-3311,
• Central region and	Cara Anderson Janet Veno	(403) 507-7928, Olds (403) 556-4663, Olds
• Northeast region Vermilion	Walter Scott	(780) 853-8223,
• Northwest region Barrhead	Garry Clark	(780) 674-8213,
• Peace region Fairview	Peggy Johnson	(780) 835-6737,

Contact: Robert Hornbrook
(780) 427-4218

What's new at the Alberta Poultry Research Centre

Two buildings are being built on a new site at the Edmonton Research Station adjacent to the Poultry Research Unit, located at the University of Alberta farm. Construction is well underway for a new 8000 square foot Poultry Technology Centre (PTC) and a 2000 square foot research hatchery.

"Over $1,300,000 has been raised from the poultry industry for the construction and partial equipping of these and two other projects at the Poultry Research Unit," says Martin Zuidhof, poultry specialist with Alberta Agriculture, Food and Rural Development. "Also, renovations to an existing facility will mean that poultry research will have eight highly controlled animal research rooms. A major provincial infrastructure grant will provide $1,160,000 towards equipping the poultry unit. The PTC will house a federally inspected processing plant with extensive capabilities for meat processing research. It will also house an instructional facility for teaching and technology transfer activities of the Poultry Research Centre."

The new hatchery is built following the design of commercial hatcheries with similar product and personnel flow. The projects should be completed in early 1999.

"The Alberta Poultry Research Centre was formed in 1986 to consolidate poultry research in Alberta," says Zuidhof. "Together, industry and government fund two endowed Chair positions, as well as contributing towards infrastructure and technical support costs. An advisory committee administers the Centre, establishes research priorities and ensures results are communicated effectively to the poultry industry."

"The poultry research unit supports major research programs of reproductive efficiency in meat poultry (chickens and turkeys), controlled environment research, nutrition, production efficiency, value-added product development, and packaging and food safety research," adds Zuidhof. "In addition to on-site laboratory facilities, the Poultry Research Centre has access to over 6000 square metres of laboratory facilities including a state-of-the-art biotechnology centre in the Agriculture Forestry Centre on the nearby campus. A computerized oviposition recording facility has been constructed to house 30 hens. The unit also includes a feed-mixing area and facilities for egg grading and storage."

The Poultry Research Centre is made possible through the cooperation of: The University of Alberta, Alberta Agriculture, Food and Rural Development, Alberta Chicken Producers, Alberta Egg Producers, Alberta Turkey Producers and Alberta Hatching Egg Producers.

Contact: Martin Zuidhof
(780) 427-4608

Can local products find a home in the food service industry?

Organically grown herbs, wild boar, saskatoon pie filling – regardless of the product, accessing a market can be a frustrating step. The food service market is a viable option for many products and understanding that market is an important first step.

"In January, the Alberta Food Processor's Association sponsored a food service workshop," says Kerry Engel, rural development specialist – business with Alberta Agriculture, Food and Rural Development, Westlock. "One of the processors in attendance stated that even with food service there needs to be at least five cases of product being sold before a distributor will show any interest. This means producers need to convince the chefs in the target market to try and use the product before going to a distributor."

Phil Joy, of *Taste of The Town*, a retired restauranteur and executive chef has some good advice for those interested in accessing the food service market. He says that the opinion of the chef is very important and needs to be influenced before contact is made with a distributor.

"Recognize that the food service industry is made up of various segments: hotels, restaurants, caterers, institutions or cafeterias," says Engel. "Within each segment there are various levels such as upscale, family or budget. Processors must ask who wants their product and who they will actually sell the product to. The answers will vary depending on the market."

Comptrollers usually control buying for large chains. Purchasing managers may be the contact for a large group of hotels such as the CP Group. Food and beverage managers will control purchases for many restaurants, smaller hotels and for larger caterers, while, some restaurant groups have a division or territory managers that facilitate sales.

"Regardless of who does the purchasing, in most cases it is the chef that must be convinced to try the product," adds Engel. "The secret is knowing how to 'ASK' the chef in order to make the sale. It's important to understand that there are two schools - old and new. Understand what type of chef you're dealing with – the *new-school* chef will definitely be more open to a direct approach."

Chefs have four basic needs: quality, service, customer satisfaction and price. A product should taste good, be uniform in size, consistently available and contain high quality ingredients. The product should have an identified shelf life and be prepared according to food safety standards.

"Service and delivery must be reliable and flexible," says Engel. "Be knowledgeable about the chef's business and about the product being offered. Processors need to provide constant follow-up and they need to provide all of this at a competitive price. And, don't forget to follow *The Food Service Golden Rule*: Never approach a food service professional immediately prior to meal time."

Many people are finding the food service market easier to access than retail – but regardless of the market chosen, do the necessary homework first.

Rural development specialists are available to help and answer processor's questions. Contact the local Alberta Agriculture office the nearest rural development specialist – business: Joyce Lencucha in the Red Deer office (403) 340-5358; Suzanne Tenold in the Airdrie District office (403) 948-8504; Karen Goad in the Grande Prairie office (780) 538-5285; or Karen Hoover in the Lethbridge office (403) 381-5130. Alberta government numbers are toll free by dialing 310-0000 first.

Contact: *Kerry Engel*
(780) 349-4465

Laying the ground work with quality transplants

Although harvesting vegetables from fields usually start in mid to late June, the ground work for growing many vegetables is being done right now. Good quality transplants are the key to having good crops and good quality vegetables to harvest later in the season.

"Using good quality vegetable transplants in the field leads to a more uniform crop stand, reduced crop competition from weeds, higher crop yields, earlier crop maturity and often superior quality product," says Belinda Choban, vegetable crop specialist, Crop Diversification Centre North (CDCN), Alberta Agriculture, Food and Rural Development.

"Most field vegetable growers have their own greenhouses to grow transplants, although some prefer to buy from specialized growers," adds Dr. Mohyuddin Mirza, greenhouse crops specialist, CDCN, Alberta Agriculture, Food and Rural Development.

"Growers are filling in trays, preparing fertilizer formulations, setting up irrigations systems and checking the heating systems in the greenhouses," continues Choban. "Selecting vegetable varieties suitable for growing in a specific area and acquiring good quality seed is the starting point of a good quality transplant. Research at the CDCN has identified many vegetable varieties suitable to Alberta's climate."

The seeding of most vegetable transplant crops begins in early March. The same crop is often succession seeded several times at approximately two-week intervals so harvest of the crop can continue over a longer period of time.

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"An economical system of growing the vegetable transplants involves growing them in greenhouses at high plant populations," says Choban. "The young plants are grown in plugs-type trays. In addition to transplant health and quality, plug size will also influence the plant's performance in the field."

"It is advisable to start feeding the plugs at an early stage with fertilizers containing nitrate nitrogen and high potash," says Mirza. "The key is to grow the transplants slowly so they are compact and not leggy."

Slow growth involves a combination of several management practices like same day and night temperature, adequate watering and good air flow through the greenhouses.

"As growers work toward this early start, they need to remember that young transplants are very attractive to insects, such as aphids and thrips," cautions Kris Pruski, entomologist at CDCN. "Check the plants frequently and place several yellow sticky traps at various locations in the greenhouses. These traps give information on the type of insects that are around."

Hardening young vegetable transplants is very important before planting them out in the field. The young transplants must be toughened-up to withstand the outdoor changing air temperatures, drying soils, winds and hot sunshine.

"In some early crops such as early cole crops and lettuce, the young plants must withstand cold soils and frosts," says Choban. "Hardening is achieved by reducing the night temperature, increasing potash in the feeding program and making sure that adequate calcium is supplied prior to exposing the transplants to the outdoor elements. Depending on the kind of vegetable plant being grown, hardening may take one to three weeks."

"As transplants are grown at high relative humidity and low greenhouse ventilation, insects, such as fungus gnats and shore flies, could multiply very fast," adds Pruski. "If unchecked, these insects can cause serious root loss. Biocontrols can be used effectively on vegetable transplants and started early."

For more information on vegetable transplants, greenhouse management and insect control, contact the Crop Diversification Centre North (780) 422-1789 in Edmonton or the Crop Diversification Centre South (403) 362-1300 in Brooks.

Contact: *Belinda Choban*
(780) 415-2304
Kris Pruski
(780) 415-2316

Dr. Mohyuddin Mirza
(780) 415-2303

Checking for lice

Winter, with long periods of cold weather is the time producers will notice increases in populations of biting and sucking insects and lice in beef cattle.

"Keeping a look-out for signs such as cattle scratching and rubbing their bodies on fence wire, boards and trees is the best indication that there may be a problem with lice," says Bill Grabowsky, beef specialist with Alberta Agriculture, Food and Rural Development, Wetaskiwin. "Biting lice that cause irritations are feeding on skin debris found on the bodies of cattle, leaving behind bits of hair and dead skin. The cattle scratch to get rid of this irritation. If the lice are the sucking type, they concentrate in the more tender areas of the body like the udder, tail head, eyebrows, ears and scrotum. When the cattle scratch and rub these areas, blood stains are visible. In extreme cases, especially in younger animals, sucking lice can cause anaemia."

The overall losses usually revolve around reduced animal production and performance. Moderate infestations of lice, as documented by Drummond in 1987, showed average daily gain was reduced by .019 kg or .04 lbs per day per animal.

"The life cycle of these lice varies from three to four weeks after which, if the newly hatched larvae have not been killed off, re-infestation occurs," says Grabowsky. "Cattle not treated in the fall or cattle housed in facilities that are not disinfected and clean prior to use, can also re-infect the herd. Also, untreated or outside cattle can transfer lice to treated cattle and this starts the cycle all over again."

As far as treatment goes, there's a wide range of safe products on the market. Weather permitting, treatments mostly involve pour-ons, or self-treatment stations. For producers, discussing a louse control program with their veterinarians and feed supply stores is strongly encouraged. Withdrawal times, age and size of animals, pregnancy status, grub control protocol and even nutrition should be dealt with.

"Some data gleaned from literature suggests that cattle can be genetically susceptible to louse infestations," adds Grabowsky. "Getting rid of lice totally just isn't possible, but, treatment is available at a reasonable cost. It's part of doing business in the beef industry."

Contact: *Bill Grabowsky*
(780) 361-1240

Agri-News Briefs

Pruning basics

A two-day workshop for beginning arborists, landscape maintenance contractors, municipal employees or anyone interested in tree and shrub pruning is planned for March 30 and 31, 1999 at the Crop Diversification Centre North, 17507 Fort Road, Edmonton. The workshop provides hands-on techniques using pruning tools. Topics covered during the two days include: plant structure, insects and diseases, plant hardiness and the pruning of deciduous, evergreen and fruit trees and shrubs. Workshop fee is $99 (plus GST) for Landscape Alberta Nursery Trades Association (LANTA) members and $119 (plus GST) for non-members and includes professional instruction and a comprehensive pruning workbook. All participants are requested to bring their own basic hand pruning tools, appropriate outdoor clothing and safety equipment. For further information, contact LANTA toll free at 1-800-378-3198 in Alberta, (780) 489-1991 in the Edmonton area or e-mail **lanta@planet.eon.net** Registrations with VISA or MasterCard payment can be faxed to (780) 444-2152.

Livestock Care Conference '99

The Alberta Farm Animal Care Association (AFAC) is ***Taking the Offense on Animal Welfare*** at their Livestock Care Conference '99, March 12, 1999 at the Sheraton Cavalier Hotel, Calgary. The conference, co-sponsored by Alberta Agriculture, Food and Rural Development, gives producers a chance to learn from others about the strategies used to deal with animal welfare concerns. Presentations include:

- Animal Rights – Everyone's Concern, Patricia Guyda, president of Canadians for Health Research;
- The Equine Ranching Industry – Taking Action, Norm Luba, executive director of North American Equine Ranching Information Council (NAERIC);
- Newfoundland's Fishing Industry – Taking Action, John Efford, Minister of Fisheries and Aquaculture for Newfoundland; and,
- Responsible Animal Handling, featuring representatives from Maple Leaf Poultry, Fletcher's Fine Foods and Cargill Foods and IBP (Lakeside) Beef.

Registration is $75 (includes GST) and early registration is advisable as space is limited. For more information, contact AFAC at (403)932-8050 or e-mail **afac@cadvision.com**

Commercial white-tailed deer industry

Industry highlights, governing regulations, marketing and production tips and economic and finance facts make up the bulk of information in the new AgVenture factsheet on the ***Commercial White-tailed Deer Industry*** (Agdex 481/830-2). The industry profile factsheet also contains cost analysis and revenue and expense estimate tables that can be used as models when drafting individual business plans. The factsheet addresses key management issues for raising white-tailed deer such as defining markets and buyers; defining production practices that need to be implemented; assessing the amount of time required to continuously market product and improve production performance. All AgVenture factsheets are available at no cost at all Alberta Agriculture, Food and Rural Development district offices and at the Alberta Agriculture publications office, main floor, 7000 - 113 Street, Edmonton, AB T6H 5T6.

Echinacea production workshop

Alberta Greenhouse Growers Association and Crop Diversification Centre North (CDCN), Edmonton have organized an echinacea production workshop for Wednesday, March 17, 1999 at 9:00 a.m to 4:30 p.m. The workshop will be held at CDCN, 17507 Fort Road, Edmonton. Topics include genetic identification of echinacea species, seed germination and plug production, greenhouse and field production, quality aspects and disease control. Registration cost of the workshop is $53.50 (includes GST) and pre-registration is required. Make cheques payable to the Alberta Greenhouse Growers Association. For more information, contact Dr. Mohyuddin Mirza at (780) 415-2303.

Wills and estate planning

Three Wills and Estate Planning workshops are planned for March 1999. The workshop will offer suggestions and help registrants plan their will, estate transfers and provide tips on how to save some money during the process. Fair treatment of non-farming children will also be discussed during the workshop. There is a charge of $20 per family to attend the half-day workshops being held in:

- Sedgewick County Building
  March 4, 1:30 to 4:30 p.m.
- Camrose Professional Building
  March 11, 1:30 to 4:30 p.m.
- St. Paul Provincial Building
  March 18, 1:30 to 4:30 p.m.

For more information, contact Alberta Agriculture, Food and Rural Development, Vegreville district office, (780) 632-5400. Government numbers are toll free in Alberta by dialling 310-0000 first and then the number.

Coming Agricultural Events

March, 1999

Understanding Farm/Ranch Resources for Manure Management

March 1 - 2
David Shaw Memorial Centre
Hines Creek
Fee: $125.00 includes aerial photograph and lunch both days
Pre-register 3 weeks in advance
Contact: Tamara Lewis
(780) 427-3819

Grain Marketing

March 1 - 12
Provost
Fee: $30
Contact: Jim Broatch
(403) 753-6871

Land & Crop Management Using Precision Farming Software (FarmTrac)

March 1 - 8
Taber
Fee: $185.00
Contact: Bradley Smith
(403) 223-7907

Alberta Surface Rights Federation Annual Meeting

March 2
Legion Hall
Camrose
Contact: Tony Nichols
(403) 882-2343

Alberta Poultry Industry Council annual meeting

March 2 - 4
Capri Centre
Red Deer
Contact: Alberta Chicken Producers
(780) 488-2125

Saskatchewan Pork Expo

March 2 - 3
Trade Centre, Prairieland Exhibition Grounds
Saskatoon, SK
Contact: Wendy Hayes
(306) 933-5078

North American Seed Fair

March 3 - 6
Exhibition Grounds
Lethbridge
Contact: Lethbridge Exhibition
(403) 328-4491

Understanding Farm/Ranch Resources for Manure Management

March 3 - 4
Trumpeter Inn
Grande Prairie
Fee: $125.00 includes aerial photograph and lunch both days
Pre-register 3 weeks in advance
Contact: Tamara Lewis
(780) 427-3819

Your Will & Estate Planning

March 4
County Building
Sedgewick
Fee: $20.00 per family
Contact: Ag District Office – Sedgewick
(780) 384-3737

Northwest Sheep Producers Association Lambing Workshop

March 6
Westlock
Fee: members free; non-members $5.00
Contact: Colin
(780) 954-2648

Beginner Sheep Production

March 6 - 7
Lakeland College
Vermilion
Fee: $171.20 includes GST
Contact: Rhonda Laumbach
(780) 853-8400

Nutrition Labelling: Regulatory Workshop

March 8
Internationa Plaza Hotel
Toronto, Ontario
Fee: $450 + GST
Contact: Food Institute of Canada
(613) 722-1000

Peace Region Super Canola Meetings
March 8
Hillcrest School
Blumenort, Alberta
Fee: $10.00
Contact: Alberta Agriculture, Food and Rural Development, La Crete
(403) 927-3712

Finding Agreement on Difficult Issues
March 8
Provincial Building
Claresholm, Alberta
Fee: $35
Contact: Tamara Lewis
(780) 427-3819

Western Canada Dairy Seminar
March 9 - 12
Capri Centre
Red Deer
Contact: David Croy
(403) 381-5106

Peace Region super Canola Meetings
March 9
Mile "0" Inn
Grimshaw
Fee: $10.00
Contact:
Alberta Agriculture, Food and Rural Development
(780) 835-2241, Fairview or (780) 836-3351, Manning

Crop Diversification Workshop
March 9
8:30 am - 4:30 pm
Pioneer Hall
St Paul
Fee: $25.00
Contact: Morley Kjargaard
(780) 645-6301

For Alberta Agriculture, Crop Specialist Staff Only (Herbicide Update)
March 10
Lethbridge
Contact: Carrie Rogers
(403) 867-3606

Peace Region super Canola Meetings
March 10
George Dawson Inn
Dawson Creek, B.C.
Fee: $10.00
Contact: B.C. Ministry of Agriculture
(250) 784-2225, B.C. or (780) 538-5285, Alberta

Opening Your Gates to Agri-Tourism
March 10
Bloomn' Inn (Bed & Breakfast)
Pincher Creek
Fee: $40.00 per Individual or $50.00 per Couple (includes lunch)
Contact: Lori-Jo Graham
(403) 625-1445

AFAC Annual General Meeting and Livestock Care Conference
March 11 - 12
Sheraton Cavalier
Calgary
Contact: Susan Church
(403) 932-8050

Bedding Plants Openhouse
March 11
High Q greenhouses, 4 Miles West of Morinville and 1 Mile South
Morinville area
Fee: $10
Contact: Dr. M.Mirza
(780) 415-2303

Peace Country Classic Agri-Show
March 11 - 13
Evergreen Park
Grande Prairie
Contact: Randy J. Whelan
(403) 538-0144

Peace Country Classic Agri-Show Seed Fair
March 11 - 13
Evergreen park
Grande Prairie
Entries must be received by March 9
Contact: Grande Prairie Regional Agricultural
(780) 532-3279

Peace Region Super Canola Meetings
March 11
Grande Prairie Inn
Grande Prairie
Fee: $10.00
Contact: Alberta Agriculture
(780) 538-5285

Calving Successfully
March 12
Lethbridge Community College
Lethbridge
Fee: $53.50
Contact: John Calpas
(780) 320-3311

Peace Region super Canola Meetings

March 12
Grande Prairie Inn
Grande Prairie
Fee: $10.00
Contact: Alberta Agriculture
(780) 538-5285

Livestock Care Conference 99 (Taking the Offense on Animal Welfare)

March 12
Sheraton Cavalier Hotel
Calgary
Fee: $75.00
Contact: Alberta Farm Animal Care Association
(403) 932-8050

Crop Production and Management

March 16
Vulcan Legion Hall
Vulcan
Contact: Vulcan District Agriculture Office
(403) 485-2236

1999 Peace Region Forage Seed Association Annual Seminar

March 16
Dunvegan Motor Inn
Fairview
Fee: $50.00 (includes 1999 membership in the Peace Region Forage Seed Association)
Contact: Calvin Yoder
(780) 864-3597

Farm Women's Day

March 17
United Church
Barrhed
Fee: $15
Contact: Shilrey Lynes
(780) 674-8213

1999 Peace Region Forage Seed Association Annual Seminar

March 17
North Peace Culture Centre
Ft. St. John, BC
Fee: $50.00 (includes a 1999 membership to the Peace Region Forage Seed
Association
Contact: Ken Nickel
(250) 787-3240

Echinacea Production Workshop

March 17
CDC North, 17507-Fort Road, Edmonton
Edmonton
Fee: $53.50 (Includes GST) Lunch included
Contact: Dr. M.Mirza
(780) 415-2303

Alberta Pork Congress

March 17 - 18
The Westerner Exposition
Red Deer
Contact: Alberta Pork Congress
(403) 244-4487

Smoky River Agricultural Trade Show

March 19 - 21
Falher Arena, Curling Rink & K of C Hall
Falher
Fee: Booth purchase $400 (10'x10') or $4/day to attend show (Adult)
Contact: Roch Bremont – SARDA
Trade Show Co-ordinator
(780) 837-2211

Alberta Association of Agricultural Societies (AAAS) Annual Meeting & Convention

March 19 - 21
Coast Plaza Hotel (previously the Marlborough)
Calgary
Fee: $115.00 per delegate or $70.00 per guest package
Contact: Wendy Pruden
(780) 427-2174

Feeding for Profit

March 19
Lethbridge Community College
Lethbridge
Fee: $53.50
Contact: John Calpas
(403) 320-3311

Basic Principles of Aquaculture

March 19 - 20
Co. Red Deer Regional Fire Hall
Penhold
Fee: $125.00
Contact: Eric Hutchings
(403) 381-5574

Growing Beyond 2000 – Saskatoon & Chokecherry Production Workshop

March 19 - 20
Holiday Inn
Edmonton
Contact: Nadine or Bob Stielow
(780) 998-0481

North Peace Applied Research Association Annual Meeting
March 20
Hill Crest Community School
Bluemnort
Fee: Registration (no fee), 1999 Memberships for $21.40
Contact: Fort Vermilion District Office
(780) 927-3712

Fairview College 2nd Annual Horse Sale
March 20
Fairview College
Fairview
Contact: Ryan Cumbrland
(780) 835-6702

Finding Agreement on Difficult Issues
March 23 - 24
Red Deer
Fee: $70
Contact: Tamara Lewis
(780) 427-3819

Commercial Pesticide Applicator Training Course
March 23 - 27
Lethbridge Community College
Lethbridge
Fee: $240.75 including GST
Contact: John Calpas
(403) 320-3311

Internet for Agriculture Research and Learning
March 23
Vulcan Ag. Office 102-1 St. S
Vulcan
Fee: $5.00/person. Cheques payable to the County of Vulcan
Contact: Vulcan District Agriculture Office
(780) 485-2236

Northlands Pedigreed Seed Show
March 24 - 27, 1999
Northlands AgriCom
Edmonton
Samples must be received by March 1, 1999
Contact: Northlands Park
(780) 471-7260

Rainy Creek Soil Conservation Club, 1999 Direct Seeding Workshop
March 24
Bentley Community Hall
Bentley
Fee: $10.00 before March 22, $15.00 at the door, includes lunch
Contact: Harvey Brink/Edwin Woodrow
(403) 748-2777

Small Can Be Beautiful – Carving a Niche in Alternative Crops
March 25
Heritage Inn
Brooks
Fee: $25 includes lunch
Contact: Lorna MacDougall
(403) 529-3616

Alberta Institute of Agrologists 53rd Annual Conference
March 25 - 27
Lethbridge Lodge
Lethbridge
Contact: Dr. Brian Freeze
(403) 317-2241

Bashaw Jackpot Prospect Steer and Heifer Show
March 27
Bashaw Ag. Building
Bashaw
Fee: Open Classes – $50 per entry; 4-H Classes $15 per entry
Contact: Sarah Northey
(780) 372-4021

Landscape Design Certificate
March 27
Beiseker Community School
Beiseker
Fee: $78.00
Contact: Wendy Metzger
(403) 546-2263

National Agriculture Awareness Conference
March 28 - 30
Radisson Hotel
Ottawa
Fee: $225
Contact: Kathy Bourbonnais
(613) 236-6659

April, 1999

Sheep shearing and wool handling
April 3 - 4
Olds College
Olds
Contact: Olds College Extension Office
(403) 556-8344

Consort Jackpot Progress Steer Show
April 10
Consort Sportex Arena
Consort
Fee: Open Steers $75; 4-H Steers $15
Contact: Frank or Donna Murphy
(403) 552-2191

Food Safety and International Competitiveness: The Case of Mea
April 14 - 16
Banff Springs Hotel
Banff
Contact: AVAC Ltd
(403) 274-2774

Rural Alberta Showcase '99 – A Celebration of Rural Living
April 19
Bashaw Recreation Complex
Bashaw
Contact: Jackie Northey
(780)372-3648

Developing Your Food Business – Part 2 Shipping Options
April 23
Lethbridge Ag. Centre
Lethbridge
Fee: $50.00/person for Part 2
Cheques payable to the County of Vulcan
Contact: Vulcan District Agriculture Office
(403) 485-2236

World Aquaculture '99
April 27 - May 2
Darling Harbour Convention Centre
Sydney, Australia
Contact: E-mail: worldaqua@aol.com

May, 1999

Leduc Calmar 4-H beef club Achievement Day
May 10
Black Gold Arena
Leduc
Contact: Paul Bryant
(780) 986-3679

12th World Meat Congress
May 17 - 20, 1999
Dublin, Ireland
Contact: Lena Williams, Bord Bia
+353 1 668.5155

Horse Training Clinic
May 29 - June 2, 1999
Fairview College
Fairview
Fee: $450.00
Contact: Kelly or Wendy Ross
(780) 494-2527

Sundre/Bergen 4-H Show & Sale
May 31
Sundre Arena
Sundre
Contact: Mindy Thompson
(403) 335-8949

June, 1999

Horse Training Clinic
June 5 - 9
Grand Meadows
Grande Prairie
Fee: $450.00
Contact: Kelly or Wendy Ross
(780) 494-2527

Parelli Natural Horsemanship Clinic
June 5 - 8
Okotoks
Contact: Mary Ann Marcellus
(403) 556-1PNH (1764)

Alberta Women's Institutes 90th Anniversary Convention
June 9 - 10
Olds College
Olds
Contact: Alberta Women's Institutes, Executive
(780) 488-5282

Manure Management '99
June 22 - 26
Saskatoon Travelodge
Saskatoon, Saskatchewan
Contact: Grant Wood
(306) 966-5586

July, 1999

Crop Improvement Day 99
July 6
Field off #9 Highway NE-10-28-3-W4
Oyen
Contact: Trevor Wallace
(403) 664-3899

Western Canada Agronomy Workshop
July 7 - 9
Brandon, Manitoba
Contact: Terry Roberts
(306) 652-3535, Saskatchewan

Prairie Provinces CCA Program Update
July 7
Brandon, Manitoba
Contact: Terry Roberts
(306) 652-3535, Saskatchewan

Calgary Stampede
July 9 - 18
Stampede Park
Calgary

Nutracon '99
July 12 - 14
Caesar's Palace
Las Vegas, USA
Contact: Customer Service
1-888-868-7188
(916) 774-6962

Agricultural Service Board Provincial Tour, Summer 1999
July 13 - 16
Omniplex
Drayton Valley
Contact: Tennie McCracken
(780) 542-7777

13th International Farm Management Congress
July 19 - 24
Holiday Inn
Durban, South Africa, Natal
Fee: est $600 US
Contact: J. Wilson Loree
(403) 556-4213

Aquatech '99
July 27 - 30
Contact: Tillmann Benfey
(506) 452-6293

August, 1999

Agriculture Institute of Canada Annual Conference
August 8 - 10
University of Prince Edward Island
Charlottetown, P.E.I.
Contact: Kais Deelstra
(902) 368-4842

North American Weed Management Association – 7th Annual Conference & Trade Show August 10 - 12
Lethbridge Lodge Hotel
Lethbridge
Contact: Shaffeek Ali
(780) 422-4909

September, 1999

XXXVI International Apicultural Congress
September 13 - 18
Vancouver Trade and Convention Centre
Vancouver, B.C.
Contact: Apimondia '99

World Dairy Expo
September 29 - October 3
Dane County Expo Center
Madison, Wisconsin
Contact: World Dairy Expo
(608) 224-6455

October, 1999

Agriculture and Food Week
October 10 - 16
Alberta
Contact: Ron Brown
(780) 422-3925

November, 1999

Red Deer International Agri-Trade
November 10 - 13
Westerner Park, 4847A - 19th Street
Red Deer
Contact: Pat Kennedy
(403) 343-7800

Saskatchewan Pork Industry Symposium
November 18 - 19
Saskatoon Inn
Saskatoon, SK
Contact: Wendy Hayes
(306) 933-5078

Alberta Sheep Symposium
November 26 - 28
Capri Centre
Red Deer
Contact: Amy Jackson, Alberta Sheep Breeders' Association
(403) 335-4348

April, 2000

1st International Symposium on Antler Science and Product Technology
April 9 - 12, 2000
Eric Harvie Theatre, Banff Centre
Banff
Contact: Dr. Robert Hudson, University of Alberta
(780) 492-2111

July, 2000

Calgary Stampede
July 7 - 16, 2000
Stampede Park
Calgary

August, 2000

International Bison Conference
August 1 - 4, 2000
Mayfield Inn
Edmonton
Contact: Phil Staden
(780) 763-2107, Mannville

World Poultry Conference
August 20 - 25, 2000
Palais Des Congres
Montreal, Quebec
Contact: Events International Meeting Planners
(514) 286-0855

October, 2000

World Dairy Expo
October 4 - 8, 2000
Dane County Expo Center
Madison, Wisconsin
Contact: World Dairy Expo
(608) 224-6455

July, 2001

XIV International Plant Nutrition Colloquium
July 28 - August 3, 2001
University of Hannover
Hannover, Germany
Contact: IPNC Secretariat
+49-(0)511-762-2626

National Library of Canada
Bibliothèque nationale du Canada
3 3286 51741 3650

Coming agricultural events notice

Do you know of any provincial (Alberta), national or international agricultural meetings, conferences or conventions coming in 1999 or 2000? Please state the **name** of the event(s):

When is the event being held?

Where is the event being held? Include city or town; hotel or convention centre, if known:

Please give **name, city or town, and phone number** of a **contact person** for each event listed:

This form has been **completed by** what organization? Please include your phone number:

Please return this form by May 21, 1999 to:

Lee Anne Palutke, Agri-News Editor
Communications Division
J.G. O'Donoghue Building
7000 - 113 Street
Edmonton, Alberta T6H 5T6
Phone: (780)422-6958
Fax: (780)427-2861
E-mail: agrinews@agric.gov.ab.ca

"Coming agricultural events" is published quarterly in Agri-News.
The next list will be June 7, 1999.

Agri-News

March 8, 1999

Rural school children Plant the Seed of Farm Safety

Every year Alberta children are killed or injured on local farms. Now school children are sharing their farm safety ideas. *Plant the Seed of Farm Safety* is an innovative campaign designed to combat incidences of farm injury and death.

Alberta Agriculture, Food and Rural Development has partnered with John Deer Limited and Hole's Greenhouse & Gardens to launch *Plant the Seed of Farm Safety*. This week rural children in grades one to four will receive a package of seeds to create bright yellow sunflowers. "We want the children to plant them, care for them and watch them grow," says Solomon Kyeremanteng, manager of Alberta Agriculture's Farm Safety Program. "Then they can write and tell us what they are doing on their farm to make it a safe place. We want children to become friends of farm safety because, a safe farm is a great place to grow."

Many fabulous prizes are available to be won. Two grand prizes consist of a family trip for four to Calgary or Edmonton, where winners will take in an NHL hockey game. Also included is accommodation. As well, 50 knapsacks with cooler bags and 100 insulated lunch bags will be given out.

"We are very pleased that Alberta Agriculture has once again asked John Deere to participate in their farm safety program," says Bonnie Hayden, manager of marketing communications at John Deere Limited in Grimsby, Ontario. "This is the sixth Alberta Agriculture campaign in which our company has participated. We and our John Deere dealers are deeply committed to farm safety and feel this program is a tremendous way of creating safety awareness among rural communities in this province."

Plant the Seed of Farm Safety was launched at Sunnyside School near Lethbridge. The children were eager to plant their sunflower seeds. Bill Hole, owner manager of Hole's Greenhouse & Gardens, is an advocate of farm safety. "Growing up on a farm is a wonderful experience. Good farm safety lets kids be kids, and gives parents peace of mind," says Hole.

Plant the Seed of Farm Safety kicks off National Farm Safety Week, March 10 -17.

"Preliminary statistics for Alberta show 22 farm fatalities. One-third of these deaths were children, and there were more than 1600 reported injuries," reports Kyeremanteng. "We must continue working together to end all farm injuries. People dying through farm accident deaths is not acceptable. We welcome suggestions from all agriculture partners, especially children, that will help reduce injuries and fatalities on our farms. Together we can show that safe Alberta farms are a great place to grow all year long."

Contact: Solomon Kyeremanteng (780) 427 4227

This Week **Farm Safety Week**

Rural school children Plant the Seed of Farm Safety 1

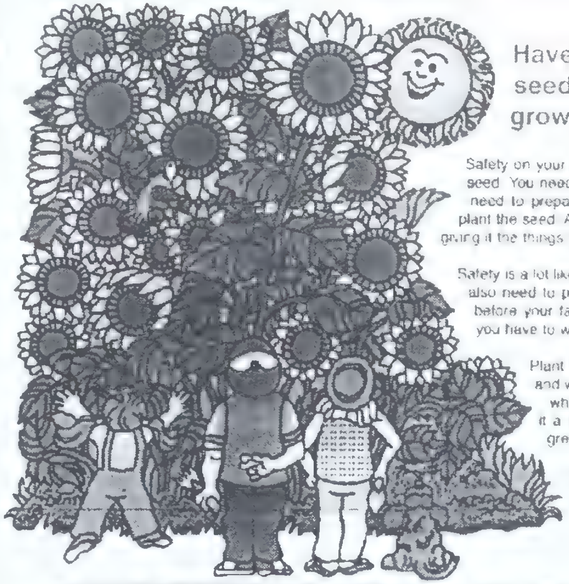
1998 Alberta farm fatality and injury statistics 3

Make it safe, make it visible 3

Alberta farmers benefit from the Federal/Provincial Agriculture Income Disaster Assistance Program 4

Cereals for silage production 4

Briefs 5



Have you planted the seeds to make safety grow on your farm?

Safety on your farm starts with you. It's like planting a seed. You need to plan what you are going to do. You need to prepare a good spot. You need to carefully plant the seed. And then you need to care for it daily by giving it the things it needs to grow strong and healthy.

Safety is a lot like planting a seed. You need a plan. You also need to put your safety plan into practice. Then before your farm can truly be a great place to grow you have to work at farm safety each day.

Plant these sunflower seeds, care for them and watch them grow. Then write and tell us what *you* are doing on your farm to make it a safe place. You could win some really great prizes.

Become a farm safety friend because a safe farm is a great place to grow.

HOLE'S
CANADA NO.1 SELECTED QUALITY SEED
SUNFLOWER
Mammoth Russian
TRADE PACKET

[illegible] Grand Prizes (2) [illegible]

NAME

ADDRESS

POSTAL CODE

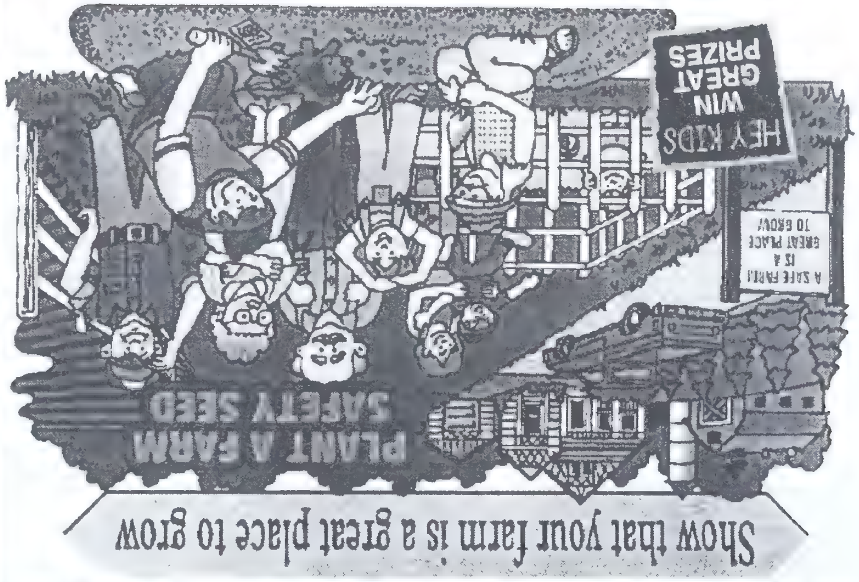
PHONE

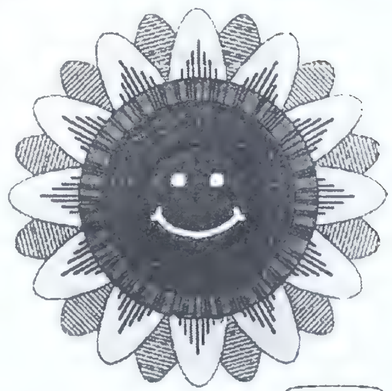
SCHOOL NAME

PARENT'S NAME

I AM MAKING MY FARM A SAFE PLACE BY

ENTRY DEADLINE IS: September 30, 1999


Show that your farm is a great place to grow
PLANT A FARM SAFETY SEED
HEY KIDS WIN GREAT PRIZES
A SAFE FARM IS A GREAT PLACE TO GROW!



HOLE'S
Enjoy Gardening

JOHN DEERE

Alberta
AGRICULTURE, FOOD AND RURAL DEVELOPMENT

Alberta
AGRICULTURE, FOOD AND
RURAL DEVELOPMENT
Farm Safety Program
201, 7000 - 113 Street
Edmonton, AB T6H 5T6

1998 Alberta farm fatality and injury statistics

To provide information on farm injury incidents, 70 Alberta hospitals provide information for all farm related injuries to the Farm Accident Monitoring System (FAMS). The information gathered by FAMS is used by the Farm Safety Program to enhance their education and awareness programs.

"Safety is every bit as important on farms as it is in any workplace," says Solomon Kyeremanteng, manager of Alberta Agriculture, Food and Rural Development's farm safety program. "Alberta farmers work with machinery and livestock, both of which require cautious and safe handling. While there are peak times of activity, farm safety is a year round necessity."

In 1998 there were:

- 1621 reported injuries
- an average of 135 per month; May had the highest number of injuries at 251(15 %) and December had the lowest number, 49 injuries (3 %)
- livestock contributed to 719 incidents (44 %)
- farm machinery contributed to 439 injury cases (27 %)
- tools contributed to 152 injury cases (9 %); knives were the tool most often cited in the reported injury (35 cases), followed by needles and syringes (28 cases)
- chemicals contributed to 44 reported injury cases (3 %)
- 13 injuries (1 %) involved fire
- the most common type of injury involved was lacerations followed by contusions and fractures
- fingers and thumbs were involved in the highest category of injury
- 18 to 34 year-olds emerged as the age group with the highest number of injuries
- 78 per cent of injuries involved males (1272 cases); 21 per cent (342 cases) involved females
- 76 per cent of farm injuries reported occurred between 9:00 a.m. and 9:00 p.m.
- 11 injuries involved machinery rollovers and 14 injuries involving machinery run over
- there were 22 farm fatalities in 1998

"A Safe Farm is a Great Place to Grow has been the theme of the Alberta Agriculture farm safety program for the past two years," says Kyeremanteng. "There are so many meanings to this theme - a safe farm can be a great place to grow up, a great place to grow older, a great place to grow crops and livestock.

"The emphasis is on the word SAFE. The members of the farm safety program, corporate sponsors, all the survivors of farm related injuries and especially all the children growing up on Alberta farms hope for a safe and prosperous year. Work safe! Alberta farmers, ranchers, producers and processors are important to us all."

Contact: Solomon Kyeremanteng (780) 427-4227

Make it safe – make it visible

The key to safely transporting farm machinery on public roads is to be as visible as possible. The Canada West Equipment Dealer's Association is working in cooperation with Alberta Agriculture, Food and Rural Development and Alberta Transportation and Utilities to deliver the *Make It Safe. Make It Visible* message.

A new publication called ***Make It Safe, Make It Visible*** will be available from all sponsors, Alberta Agriculture district offices and Alberta Transportation offices in April 1999.

For more information, contact Solomon Kyeremanteng, manager of Alberta Agriculture's farm safety program, (780) 427-4227. Government numbers are toll free in Alberta by dialing 310-0000 first.

Make It Safe
Make It Visible

SAFE TRANSPORT
OF FARM
EQUIPMENT
ON ALBERTA'S
HIGHWAYS

CANADA WEST
Alberta

Alberta farmers benefit from the Federal/Provincial Agriculture Income Disaster Assistance Program

An agreement on the National **Agriculture Income Disaster Assistance** program (AIDA) was reached on February 24 and announced by Ed Stelmach, Minister of Alberta Agriculture, Food and Rural Development. Through this two year program (1998 and 1999) the costs of Alberta's Farm Income Disaster Program (FIDP) will be offset 60 per cent by the federal government. Alberta's FIDP, which was established in 1995, has been funded mainly by the provincial government.

"With the federal contribution to FIDP, a significant portion of the provincial funds dedicated to this program will be available for reinvestment in other industry initiatives," says Stelmach. "Alberta agriculture will commence discussions immediately with industry leaders to discuss options."

The new national program is modelled after Alberta's existing FIDP. While farmers in other provinces will have to wait for disaster assistance, Alberta has the infrastructure in place to make payments quickly. There will be no disruption to Alberta's program.

Producers can apply for FIDP assistance for the 1998 tax year as soon as their year end is complete and their tax return filed. Farmers will only have to make one application. FIDP remains unchanged and will be used to deliver AIDA to Alberta farmers.

"During the past three years, the Government of Alberta's FIDP has paid out approximately $180 million to producers. We expect to pay out as much as $100 million to producers for the 1998 tax year alone," says Stelmach. "FIDP has already issued cheques to farmers for the 1998 tax year totalling in excess of $2 million.

"Over the past few months, I've announced several initiatives to help those producers hit the hardest by falling commodity prices. In November 1998, we increased the maximum amount available under a new quick injection loan provision. The loan limit went from $15,000 to $50,000 with the option of interest and principal being deferred for up to two years."

Total lending to date is over $8.6 million, primarily to the hog industry.

Contact: *Ron Glen* *Ken Moholitny*
(780) 427-2137 *(780) 427-3078*

Cereals for silage production

Oats and barley are generally the most commonly used cereals for silage production in Alberta, however, all cereals are suitable for silage production.

"The yield and quality of the silage will depend upon species, varieties, production practices such as soil fertility, stage of maturity at harvesting time and of course environmental conditions such as precipitation received during the growing season," says Harvey Yoder, forage crop specialist with Alberta Agriculture, Food and Rural Development, Lac La Biche. "Before deciding what cereal crop to use for silage production, consideration should be given to the class of livestock consuming the silage, soil type, soil nutrient level, and local demonstration and research results."

If most of the silage will be fed to beef cows, selection of a cereal crop providing the greatest amount of dry matter is likely more important than quality. If the silage crop will be used to background calves or in a dairy ration, quality may be of a greater concern.

"Soil types are also a factor when selecting a species," continues Yoder. "Under cool wet conditions and soils with a pH level below 6.0, oats or triticale will generally out-yield barley. Seeding cereal crops for silage in soils with high fertility including heavily-manured fields, may require the use of cereals with a higher lodging resistance or a mixture that includes a semi-dwarf barley variety to keep the crop standing. Spring triticale or semi-dwarf barley generally have good lodging resistance. The following Table shows yield and quality results taken from several different species over a three year period at Lacombe."

Three year average of yield, quality, and date of harvest of spring and winter cereals for silage harvested at the dough stage (Baron).

Species	Variety	Date	Dm Yield t/ac	Protein %	ADF %
Winter Triticale	Pika	July 28	5.8	9.0	32.8
Fall Rye	Prima	July 14	5.7	8.2	30.0
Spring Triticale	Wapiti	August 20	5.8	9.7	28.5
Spring Barley	Tukwa	August 2	4.5	11.0	27.1
Spring Barley	Virden	August 6	4.7	9.5	34.4
Spring Oats	Cascade	August 13	5.3	9.0	33.5

Under grey-wooded soil conditions, oats many times will provide the highest total dry matter yield. However, there are times when spring triticale may out-yield oats under these conditions. Foothill is a forage type oat variety with good dry matter yields, but has a thinner stem which results in poor lodging resistance when compared to other oat varieties. Other oat varieties to consider are AC Mustang, Waldern, Grizzly and Cascade.

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"One option producers could consider is to grow a variety that has strong demand in the pony or milling oat markets so that the option is also available to harvest as grain," says Yoder. "Mixing a barley variety with an oat variety will not necessarily increase yields but it will increase quality of the silage produced."

Sebee and CDC Dolly are two-row barley varieties that have consistently yielded higher than other barley varieties with good quality in trials around Westlock and Bonnyville. Under high fertility and rainfall, Sebee seeded by itself lodged easily but when mixed with a semi-dwarf variety, such as CDC Earl or Tukwa, lodging resistance was improved. Semi-dwarf barley varieties may have lower dry matter production when seeded by themselves but have higher digestibility levels than other barley varieties. Other barley varieties to consider are tall growing feed type barleys. Under high fertility where lodging may be problem, semi-dwarf varieties to consider include Kasota, Tukwa, Duke and CDC Earl.

"Advantages for using spring triticale include superior lodging resistance and later maturity to help spread out harvesting time when dealing with large acres," adds Yoder. "Triticale can be used in crop rotations to break leaf disease problems that can occur when growing barley year after year. Dry matter production is generally higher in most areas of the province, however protein levels can be slightly lower and fibre levels slightly higher when compared to barley. Triticale could be used in mixtures with barley to help with lodging problems. Sometimes seed availability may be a problem particularly in the northern part of the province. Varieties to consider are Wapiti, AC Certa and AC Alta."

The CPS wheat varieties have produced higher dry matter yields than the hard red spring wheat varieties. Very little quality results are available. Again CPS wheat varieties may help in crop rotation to break the disease problems with barley.

"For those individuals wishing to produce a higher quality silage, peas particularly the forage type, late maturing peas can be added with a spring cereal," says Yoder. "Adding peas will generally reduce the total dry matter production, but protein levels are increased by three to four per cent and fibre levels reduced when compared to a pure cereal crop."

Contact: Harvey Yoder (780) 623-5218

Agri-News Briefs

Alberta agricultural injury related hospitalizations (1990 – 1996)

Final statistics are available for the period of 1990 to 1996 regarding agricultural injury related hospitalizations. This information was obtained from the Alberta Centre for Injury Control and Research, University of Alberta. The total number of hospitalizations from agricultural injuries in Alberta were: 1990 – 845; 1991 – 803; 1992 – 724; 1993 – 661; 1994 – 615; 1995 – 523; 1996 – 470. While it would be encouraging to attribute these steadily decreasing numbers to an increase in attention to farm safety, some of the decrease must be attributed to stricter hospitalization criteria.

The major causes of agricultural injuries that resulted in hospitalizations recorded during this time period were:

- machinery – 1042
- animal related – 1105
- falls – 815
- struck by object – 351
- overexertion – 225
- vehicles – 222
- pincher between objects – 116
- hand tools – 101

For more information, contact Solomon Kyeremanteng, manager of the farm safety program, Alberta Agriculture, Food and Rural Development, at (780) 427-4227, Edmonton. Government numbers are toll free in Alberta by dialing 310-0000 first.

Back injuries in agriculture

Back injuries are common among farmers. Lifting and carrying, whole-body vibration, physically heavy work and frequent bending and twisting are the physical risk factors associated with work-related back disorders. The risk factor causing the most problems, however, is improper lifting. The heavier the load and the greater the frequency of lifting, the greater the chance of back injury. The Canadian Federation of Agriculture (CFA), haspublished several Farm Safety Bulletins,

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one of them being ***Back Injuries in Agriculture***. The CFA recommends following these guidelines to help prevent or reduce back injuries:

- develop work methods that are efficient and the least strenuous
- lift with the legs – and not the back – bend at the knees. Keep the object close to the body and don't twist
- reduce the strain on the back by maintaining an ideal weight and exercise to strengthen muscles. Walking is an excellent exercise
- think of your back when buying farm machinery
- don't bend forward while sitting or driving
- visit the doctor if experiencing persistent back pain

1998 farm fatalities – preliminary report

A preliminary report of farm fatalities in 1998 has been prepared. The report is based on information taken from Alberta Justice, Medical Examiner's Reports. The report contains data on the date of accident, age and sex of the deceased, activity or agent involved in the incident, cause of death and location. Further information is available by contacting Solomon Kyeremanteng, manager of Alberta Agriculture's farm safety program, (780) 427-4227. Government numbers are toll free in Alberta by dialing 310-0000 first.

Date (1998)	Sex	Age	Agent/Activity	Cause of Death	Location
January 18	M	50	Fell from ladder	Head injury	Vulcan
March 15	M	3	Stuck in mud	Hypothermia	
April 14	M	77	Kick by a cow	Chest trauma	Halkirk
April 16	M	43	Tractor tipped off ramp	Head injury	Vauxhall
May 14	M	71	Trapped under machinery	Abdominal injury	Innisfail
July 1	M	45	Fell 8' from conveyor belt	Landed on concrete pad	Wetaskiwin
July 22	M	44	Fell from tractor fender in front of rear wheel	Fracture base of skull	Westlock
July 24	M	35	Waterproofing inside a reservoir, it exploded	Massive trauma	
July 30	M	63	Pinned - tractor rollover	Crush asphyxia	Ardrossan
August 3	M	69	Feeder table collapsed	Crushed chest	Grassy Lake
August 11	M	78	Found in cab of swather	Carbon monoxide poisoning	Altario
August 20	M	8	Fell in grain hopper	Suffocation	Myrnam
August 20	M	11	Fell in grain hopper	Suffocation	Myrnam
August 30	M	63	Tractor flipped	Crushed chest & neck	Lac La Biche
September 9	M	8	Crushed - tractor wheel	Massive head trauma	Camrose
September 22	F	22 mo.	Run over by family van	Massive head trauma	Rochester
September 26	M	61	Fall from 3-wheel vehicle	Blunt chest injuries	Picture Butte
September 24	M	83	Fell in front of truck wheel	Multiple blunt injuries	Innisfail
October 28	M	3	Run over by 1-ton truck	Blunt cranial cervical trauma	Gibbons
November –	M	18	Pinned by tractor bucket	Crushed	Evansburg
December 21	M	44	Pinned between tractor & farm implement	Multiple injuries	Dorothy
December –	F	–	Hit by wrench	Head injury	Innisfail
December –	M	–	Drown in manure pit	Suffocation	
December –	–	–	Roll over		Drumheller

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Agri-News

March 15, 1999

Planning and Planting a great Spring

Pest predictions '99

When dealing with crop pests, advance warning and knowing what insects to be on the lookout for is the first step in being able to quickly treat a pest situation when it arises.

"This year, there are three pests in particular that farmers should be checking for: lygus bugs, grasshoppers and Bertha armyworms," says Mike Dolinski, specialist in entomology with Alberta Agriculture, Food and Rural Development. "The number one pest to watch for is the lygus bug. In 1998, 1.4 million acres of canola were treated for lygus. The insects went into winter well fed due to the long, open fall in northern and central Alberta. The good snow cover in many parts of the province is protecting the wintering adults. In the southern part of the province, even though there hasn't been much snow, mild temperatures have been kind to the over-wintering bugs.

"It isn't possible to predict what 1999 will bring. However, parasitism is low and there don't seem to be any diseases that will have an effect on the lygus bugs. Consequently, Alberta Agriculture will be monitoring fields throughout the province, concentrating on the bud and bolting stages. At these stages, the over-winter adults begin laying their eggs. Based on the adult numbers during the bolting stage, it may be possible to predict whether the lygus bug population in 1999 has gone up or down from last year's."

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Alberta
AGRICULTURE, FOOD AND RURAL DEVELOPMENT

Once the monitoring process has started, farmers will be advised on the risk of crop damage they may experience later in crop development. Farmers are advised to survey canola fields and check for lygus bugs from just prior to bud stage, right through to harvest, to assess the lygus bug population.

Lygus bugs feed primarily on the reproductive parts of plants, the bud, bloom and then the seed in the pods. If farmers are finding a high number of lygus bugs at the bud stage (greater than 20 lygus per sweep), they can assume that those adults are lying eggs and it's their progeny that harm the seed pods in canola. If large numbers of adults are found through the bud and early flowering stages, farmers will likely have to spray right at the end of bloom.

"Spraying at the end of bloom, the recommended time, means conceding some of the buds and blossoms to the bugs but protecting the developing pods," adds Dolinski. "If a farmer sweeps a field at early bud stage and finds lots of lygus bugs, high enough numbers to prevent the plants from coming into bloom, it may be necessary to spray early. While it takes care of the immediate problem, it also means farmers may need to spray again in the late bloom stage. Damage at the bud stage would be most severe under drought conditions when plants are already under moisture stress and cannot compensate for bud damage.

"The economic threshold for lygus is determined near the end of bloom using a sweep net. The threshold is 1.5 lygus/sweep based on 10 sets of 10 sweeps/set. In other words, if there are more than 15 lygus bugs found in 10 sweeps consistently, it may be time to make a decision on control. The lygus tend to be the same in all parts of the field and it doesn't seem matter where the sweep sample is taken, in the middle of the field or on the edges. We're unsure of how much damage the bug does to canola late in the growing season but the damage definitely decreases as seeds in the pods mature."

Alberta Agriculture staff will be carrying out lygus bug monitoring programs provincially. Each region will have a monitoring program for this pest. Farmers should contact their local cereal and oilseed specialist for updates on lygus bug numbers in their area.

"In the case of Bertha armyworm, parasitism in central and northern Alberta has kept the risk of Bertha infestation controlled at low levels," says Dolinski. "It is always a good practice for farmers to monitor fields in late July and early August to get an idea of the Bertha population in fields."

The Peace River block has the highest risk for Berthas. Predictions of population numbers comes from monitoring the Berthas and the parasites that attack Berthas. Parasitism is higher in the North than the South Peace, consequently the South Peace is at greater risk in 1999. There is usually a delay of two to three years before a population of parasites can bring the pest under control, so the problem should pass after 1999.

"The population numbers from last fall are such that farmers shouldn't panic," says Dolinski. "However, they should be on the look out for Bertha armyworms so that if there is a need to treat, they are able to quickly respond to the problem."

When checking a field and counting Bertha armyworms, remember that any more than 15 per square metre is the population density point where chemical treatment becomes necessary.

"The grasshopper population is gradually building, mostly in east, southeast and central Alberta, or roughly from Acadia Valley north and east into the Hanna area," says Dolinski. "When checking for grasshopper infestation, farmers should keep in mind where they saw grasshoppers last fall and check those areas again in early spring, especially if it is a hot and dry spring."

Although not expecting a province-wide outbreak of any consequences in 1999, the province is at the leading edge of a grasshopper resurgence and localized severe infestation will occur. The long, dry fall (excellent weather for egg-laying) coupled with a good, warm spring could bring a more severe problem this year.

"Lygus bugs, grasshoppers and Bertha armyworms are the three pests farmers will want to pay special attention to this year," says Dolinski. "One other pest that farmers in the Lloydminster area should be aware of are orange wheat bloom midge. While big problems with wheat midge are not anticipated, routine field scouting should be done and the presence of the pest noted."

Contact: *Mike Dolinski*
(403) 422-4873

1999 Crop Protection Guide

The information needed to make the best decisions on insecticide, herbicide or other chemical treatment needs for this year's crops is available in the ***1999 Crop Protection*** guide. The guide is produced each year to keep Alberta farmers up-to-date with information on herbicides, insecticides, fungicides and rodenticides.

"Commonly known as the *Blue Book*, the 1999 issue is easy to use," says Shaffeek Ali, provincial weed specialist with Alberta Agriculture, Food and Rural Development's pest prevention and regulatory unit and editor of the '99 guide. "It's the most up-to-date guide of its kind and includes new pesticide registrations, formulation changes, minor use registrations and a complete guide to safety including protective clothing and first aid."

Details on the latest registered mixes and mix restrictions, application tips, expected results, storage and first aid precautions are included in the guide along with a listing of the weeds, diseases or pests controlled by each chemical.

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Some of the features in the '99 *Blue Book* are:

- a complete listing of pesticide container disposal sites with contact names and telephone numbers;
- chemical group numbers on the same page as the chemical for quick reference for herbicide resistance management;
- a chart on Group Classification by Modes of Action;
- 12 new pesticide registrations; and,
- minor use changes.

"The guide includes information on new chemicals, the latest registered mixes, on sprayer tank clean-out, application tips, expected results, storage and first aid precautions," adds Ali.

"Even though it gets bigger each year, we have been able to keep the cost down. It's still only $10, plus GST, a great value that helps farmers protect their investments by helping them choose the right way to treat their crops."

Early identification of grass and broad-leaved weeds also saves time and money. Alberta Agriculture's ***Weed Seedling Guide*** ($8 plus GST) helps farmers correctly identify weed seedlings, the first step in taking appropriate action to deal with weeds.

The pocket sized guide contains information on 40 broad-leaved weeds and 10 grasses. It's organized by cotyledon (seed leaf) shape to make identification easier. The 49 illustrations and 50 full-colour photos of weed seedlings and the glossary of terms make this quick reference a publication farmers will want to have on hand.

These publications are available at all Alberta Agriculture, Food and Rural Development district offices or the Publications Office at 7000 - 113 Street, Edmonton, AB T6H 5T6. VISA and MasterCard orders can be placed by calling 1-800-292-5697. Shipping and handling cost per order is $2, plus GST.

"Identification, advance planning and proper use are important factors in protecting crops," says Ali. "Arming yourself with up-to-date information is cost effective and makes good sense."

Contact: Shaffeek Ali
(403) 422-4909

Pedigreed seed growing and direct seeding

In the spring of 1998 the Alberta Reduced Tillage Initiative (ARTI) sponsored a series of seed grower focus groups on direct seeding. Mark Olson, ARTI agronomist in Leduc, noted that, "the meetings helped identify some of the challenges of and solutions to direct seeding in pedigree seed production. About 60 per cent of the participants used conventional seeding systems and 40 per cent were growing pedigree seed under a direct seeding system."

The challenges to direct seeding, as relayed by the groups could be broken down into: volunteer crops, weeds, residue management, soil conditions, machinery, disease and attitudes on direct seeding and change.

"Four of the challenges: volunteer crops, weeds, residue management and soils, had unique barriers that make wide acceptance of direct seeding by seed growers more difficult than for a commercial grain grower," Olson points out.

Occurrence of volunteer crops is a very real concern in pedigree seed production under both conventional and direct seeding. The integral multiplication of varieties is paramount to the seed grower's livelihood and reputation. Using tillage to germinate volunteer crops is easier and more consistent, however, those seed growers direct seeding believe that diverse crop rotations could replace tillage in the cropping equation.

The inability to use Roundup preharvest on the seed crop because of potential lower germination and the fact that Roundup preharvest isn't registered for use on seed crops, challenges seed growers to control perennial weeds such as Canada thistle, sow thistle, and quackgrass. Many of the focus group participants felt that the post harvest and pre-seeding treatments were not viable alternatives. Post harvest was thought unsuitable because of inconsistency in weed control due to environmental conditions. Similarly, waiting in spring for ideal weather conditions and the growth stage of weeds was seen as unacceptable since delayed seeding increases the risk of frost in the fall. Seed crops with frost damage have lower germinations and therefore may not meet certification standards. Once again, diverse rotations using different crop kinds, including forages and commercial crops like Roundup Ready canola, were possible solutions.

"Residue management and traffic-ability across the land were related to delayed seeding and the potential of the crop not maturing before the first killing frost," adds Olson. "However, participants stated that residue can be managed with proper straw and chaff spreaders. Using semi dwarf varieties and rotating between low and high residue crops are also effective in managing residue. Movement of machinery over excessively wet land, especially heavy clays, is a challenge to which there are no apparent answers. Some growers suggested that if the land was so highly saturated, it wouldn't matter what seeding system was used."

Long term research comparing conventional to direct seeding on different soil types in numerous locations throughout the province over the long term was important to the farmer participants. Additionally it was conveyed that better extension of existing data, by all players in the agricultural industry, is needed. Seed growers stated that varietal testing under direct seeding should be examined. Research on risk management comparing direct and conventional seeding must be explored, making the link between economic viability and sustainability.

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For more information on pedigree seed production using a direct seeding system contact Mark Olson, ARTI agronomist in Leduc at (780) 980-4898.

Contact: *Mark Olson* *(780) 980-4898* *Peter Gamache* *(780) 427-3361*

Organic food for thought and profit

The best way to sell a product is not to just sell something you make, it's to sell something somebody needs!

"Sales of organic foods in North America topped $4.7 billion in 1997 and are continuing double-digit growth according to the latest issue of *Western Grocer*," says Kerry Engel, rural development specialist – business with Alberta Agriculture, Food and Rural Development, Westlock. "The organic food market is a niche market for producers of a variety of commodities."

A tool producers often use to determine the feasibility of a product or where and how to market a product is a market profile. The following market profile was taken from the latest *Western Grocer* magazine.

- According to the USDA, organic produce will be 10 percent of all produce sold within 10 years.
- One out of three shoppers has changed their eating habits or sought organic produce due to reports regarding pesticide and chemical use.
- Consumers ranked in order of highest importance: 1. taste, 2. healthfulness, 3. availability, 4. environmental friendliness and 5. price as the most significant criteria for purchasing organic products. Retail value of organic produce is estimated to be at least 10 to 50 percent higher than conventional marketed food products. Higher prices are a result of higher production costs and limited supply.
- People who make over $60,000 a year are the ones who are going to drive the growth in Canada.
- Canada is on the verge of accepting a national organic standard that will vastly improve producers' capabilities to export their organic products.

"Growth in the organic industry is completely market driven - grocers say they are carrying it because consumers are asking for it," continues Engel. "From a business point of view, this is exactly the kind of growth producers and processors want. It's much easier to supply people with a product they want than to try to sell them on an idea or product."

Based on the experience of organic farmers, there are a few factors to keep in mind and a few tips that can help new processors succeed:

- talk to organic farmers to see how they produce organic products. Learn from other people's successes;
- start small and plan to increase the size of the operation over a three- to five-year period. Learn along the way and have a plan;
- determine the market potential and marketing strategies that will be used to sell the organic product. Marketing research is an essential step before growing or producing any commodity;
- research organic production methods thoroughly, and explore the various alternative methods. Sources include: books, fact sheets and the Internet;
- an organic production resource centre developed by the Sustainable Agriculture Association is housed in the library of the J.G. O'Donoghue Building, 7000 - 113 Street, Edmonton, Alberta, T6H 5T6. Books and articles are available for loan to Association members and others interested in organic production. A bibliography is also available on request, call (403) 427-2104; and,
- attend annual meetings of certifying bodies to make contact with other organic farmers and gain from their experiences.

"There are several resources available in the diversification library compiled by the rural development specialists – business dealing with the organic industry," adds Engel. "They include: the proceedings from the organic production and marketing conference, Sell what you Sew, Special Crops Directory, Organic Production, a list of Organic buyers and the Organic Producers Directory. The directory and other organic information is also available on-line at **www.agric.gov.ab.ca/food/organic/directory/index.html**"

Further information is also available by phoning:

- Organic Crop Improvement Association – Nedra Stanley (780) 698-3981;
- Sustainable Agriculture Association – 1 (888) 561-2555;
- Biological Food Producers Association – Gary Derheim, (403) 528-2010 or 549-2208; and,
- Peace River Organic Producers Association – Marina Buchan, (780) 351-2115.

Contact: *Kerry Engel* *(780) 349-4465*

Alberta's potato industry, more than meets the eye

Growing high-quality potatoes for processing requires the best soil and irrigation water, large on-farm capital and operating investments and intensive management. Alberta has all of these requirements and they contribute to Alberta's booming food processing industry.

"The high quality of processing potatoes grown by potato producers in southern Alberta was instrumental in attracting

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two world-scale potato processing plants to Alberta," says Clive Schaupmeyer, potato agronomist with Alberta Agriculture, Food and Rural Development, Crop Diversification Centre South (CDCS), Brooks

Lamb-Weston, Inc., a ConAgra company, is building a state-of-the-art potato processing plant east of Taber, Alberta Construction on the $100 million plant started in mid 1998 and will be completed by the spring of 1999

On January 7, 1999 McCain Foods (Canada) announced the selection of a site for their proposed $94 million potato processing plant. To be located east of Coaldale, adjacent to the village of Chin, the plant is scheduled to be fully operational in 2000.

Both plants will produce frozen french-fried potatoes and other related frozen products.

The two new plants will have a short and long-term impact on Alberta's economy. In addition to the plant construction cost, potato producers in southern Alberta will spend between $40 and $50 million in the next 18 months on new on-farm storage. They will also spend between $20 and $30 million each year on inputs to grow the potatoes for these new plants.

"Three companies already operate potato processing plants in Alberta," says Schaupmeyer.

"Old Dutch Foods and FritoLay manufacture potato chips in plants in Calgary and Taber. Maple Leaf Potatoes produces frozen french fries and other frozen potato products at their Lethbridge plant. Several smaller processors make various potato products including dehydrated potato granules. When the new plant is operating, Alberta's potato processing plants will process between 500 and 600 thousand tons of raw potatoes annually with a farm-gate value of between $60 and $70 million. The estimated value of potato products processed in Alberta will be between $350 and $400 million annually."

Quality and yield are important for potato processors and growers alike. French fry processors require potatoes with high dry matter as they produce crisp, mealy fries with low oil content. Growers require high yields so they can pay for the huge investments and annual operating costs.

"Growing high yields of quality potatoes requires large capital and operational outlays," explains Schaupmeyer. "Potato equipment and storage buildings cost between $4,000 and $6,000 per acre of production. In addition to these investments are the costs of land and irrigation systems that range from about $1,500 to $3,000 per acre (or more) in southern Alberta depending on location, soil type and irrigation systems. New growers getting into potato production can reduce capital expenses by purchasing good used equipment, however, on-farm storage buildings, which cannot be bought 'used', cost about $125 per short ton or about $2,500 per acre of production."

Some storage designs cost as much as $160 per ton, or over $3,000 per acre for a 20-ton-per-acre potato crop

Cash costs vary from farm to farm and year to year, but range from about $1,200 to $1,600 per acre. These include annual costs per acre of about $200 for seed, $150 for fertilizer, $200 for pest management. Rent in the Taber area for potato land was about $250 to $275 per acre in 1998

Expenditures don't ensure a high yield of quality potatoes. Field and storage management is intensive and small deficiencies in inputs or the incorrect decisions at many critical points can have a devastating affect on quality and yield. Three- and four-year rotations and top-quality seed reduce diseases. Adequate fertility and irrigation adds to both yield and quality. Weeds, insects and diseases can all ravage an expensive potato crop if allowed to flourish.

"To maintain growth and overall plant health, potato fields are closely monitored from the time plants emerge until they are killed by frost or foliage desiccants in the fall," adds Schaupmeyer. "Potatoes require uniform moisture levels that must be checked daily especially in the heat of summer when total weekly use can exceed 1½ inches (40mm) of water. Many sandy potato soils only contain about this much water in the root zone and growers typically irrigate twice each week with 3/4 inch (20 mm) each application during peak growth during hot weather. Most fertilizers are added prior to or at planting However, to ensure uniform growth and adequate nutrient supplies for bulking, or tuber development, growers apply nitrogen fertilizers through their irrigation systems. Growers take tissue samples and soil samples every week or 10 days to monitor the nutrient levels so that fertilizers are not wasted or that the crop is never short of plant food. Based on the results of these tests, fertilizers are added through the irrigation water as required."

With the right management decisions and inputs, most growers can expect to harvest between 15 and 25 tons per acre of potatoes for processing.

Potatoes are processed right out of the field in summer, but from October to July or even August, potatoes for french frying must be stored in modern sophisticated storage buildings where temperature and humidity are precisely controlled Contrary to common belief, protecting potatoes from frost is not a main concern of potato growers. But stored tubers are living organisms that breath and generate heat that must be dissipated by complex ventilation systems that control tuber temperature. Without adequate humidity, stored tubers shrink, which reduces quality and yield. High humidity increases the risk of condensation on the roof which can drip onto the crop and cause serious storage rot losses. Condensation is controlled with thick roof insulation and air flow.

Contact *Clive Schaupmeyer*
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Building the Alberta greenhouse industry: One greenhouse at a time

Estimates completed in August of 1998 place Alberta's greenhouse industry at approximately 220 acres distributed among 360 growers, with a value of $67 million annually. Bedding plant production comprises the bulk of the industry at 112 acres with production running from February to June.

Greenhouse vegetable production represents the next largest segment of the industry with 65 acres under production, the main crops being seedless cucumbers, tomatoes (beefsteak and cluster), sweet peppers and lettuce. Vegetable crops are grown year round, transplants are placed in the greenhouses in late November with harvest commencing in February – March and continuing until the following November. Flower production, cut and potted, represents approximately 10 acres of year round production.

"Alberta's greenhouse industry is expanding. For the last two years the rate of expansion in greenhouse vegetable crops has been maintained at 10 per cent per year," says Jim Calpas, greenhouse crops specialist with Alberta Agriculture, Food and Rural Development's Crop Diversification Centre South, Brooks. "Projections for the current year indicate that expansion is continuing at the same rate."

On average, the greenhouse specialists at the Crop Diversification Centre North and South (CDCN and CDCS) receive more than 300 calls a year about starting a greenhouse business. The first enquiry is generally about receiving the information on greenhouse structures, greenhouse crops and whether greenhouse production is a profitable business.

"Most of the enquiries received are prompted for various reasons," says Dr. Mohyuddin Mirza, greenhouse crops specialist, CDCN, Edmonton. "Many of the calls result from a number of crop diversification workshops held all over the province, some from press coverage of existing successful greenhouse operations, and others from a sincere desire to grow crops and make a decent living doing it."

Jim Calpas adds, "One common question from potential new greenhouse growers is whether there are any government grants available to build and operate a greenhouse. There are no grants available from the government. The greenhouse business is like any other business, funding can be obtained from banks or organizations like Alberta Financial Services Corporation".

"Personal experience and a reasonable equity are the two most desirable factors in obtaining loans from lending agencies," adds Mirza. "Preparing a cash flow projection for the greenhouse may look a bit *threatening* but it is a must if you want to apply for a loan. Cash flow projections are based on investment costs, operating costs and production costs along with gross revenue."

"What crops to grow depends on various factors like geographical location, distance to markets, retail versus wholesale opportunities and many other factors," continues Calpas. "Alberta Agriculture's greenhouse specialists can help answer many questions on the greenhouse business."

A visit to the research greenhouse facilities at CDCS in Brooks and CDCN in Edmonton is always a good starting point when investigating the greenhouse industry, and a visit to a commercial greenhouse or two is strongly recommended. "Working in a commercial greenhouse adds to your experience and could be valuable in your greenhouse planning process," adds Mirza.

Alberta Agriculture's greenhouse specialists can be contacted to answer questions, Mohyuddin Mirza can be reached at (780) 415-2303 and Jim Calpas at (403) 362-1312.

Contact:	*Dr. Mohyuddin Mirza*	*Jim Calpas*
	(780) 415-2303	*(403) 362-1312*

Impact of the URA on Canadian agriculture

A study on the impact of the Uruguay Round Agreement (URA) on Canadian agriculture has found that the effect of the 1994 agreement can be both negative and positive to this country's agriculture sector.

But the study's principal researcher stresses that one major implication from the results of the study is evident.

"There are very clear positive gains to Canadian agriculture from a multilateral trade agreement that achieves the maximum level of potential world price increases from trade liberalization," says Dr. Michele Veeman with the Department of Rural Economy at the University of Alberta, Edmonton. "In these circumstances, total agricultural production and exports increase, as do household income and factor returns."

The research project, funded by the Alberta Agricultural Research Institute (AARI), focused on the effects of the outcome of the Uruguay Round multilateral trade agreement of the General Agreement on Tariffs and Trade (GATT), effected through the World Trade Organization (WTO). The 1994 Agreement on Agriculture provided the promise of improvements in export prices and revenues arising from reductions in export subsidies and greater opportunities for exports to less distorted markets for Canadian grains and other commodities.

"A major achievement of the URA was that it brought the liberalization of trade in agricultural products into the domain of GATT," says Veeman. "Agriculture had effectively been excluded from previous GATT rounds; consequently, world markets for some farm products had become highly distorted."

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Veeman's research found that the URA affects Canadian agriculture negatively if world prices increase by only the 'minimum' of global projections. That is, the 'minimum' increases in projected world prices from the URA are too small to offset the negative effects of the URA commitments for reductions in tariffs, export subsidies and domestic support on farm production and income for Canadian agricultural producers.

If world prices change by the 'maximum' amount, however, there are clear aggregate gains for Canadian agricultural producers, notes Veeman.

"In general, the benefits from trade are greatest in grains and oilseeds, other agriculture, and food processing sectors," she says. "In these sectors, factor demand and factor returns are appreciably increased for land, labour and capital. Benefits in the other agricultural sectors from trade liberalization are also evident if export prices increase due to trade liberalization."

Contact: *Dr. Michele Veeman*
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Phosphorous mobility study

The Conservation and Development Branch and the Agronomy Unit, Alberta Agriculture, Food and Rural Development, have joined forces to lead a project on evaluating the mobility of the Phosphorous nutrient from manured soils through surface runoff.

"Intensification of the livestock industry in Alberta and concerns about the contribution of agricultural operations to nutrient loading of water bodies has led to the initiation of this project," says Douwe Vanderwel, soil and water conservation engineer with Alberta Agriculture, Food and Rural Development.

By building on the expertise found in the two department soils branches, nutrient management, hydrology and erosion control project leaders Dan Heaney and Douwe Vanderwel expect to develop risk assessment tools for manured soils and potential for phosphorous movement off the land.

"The project will rely heavily upon the use of an artificial rainfall simulator in order to assess the mobility of phosphorous from a wide range of soils found throughout the province," explains Vanderwel. "Variables such as slope, soil texture, organic matter, and rainfall intensity will be evaluated under controlled conditions with the use of the rainfall simulator."

Critical to the study is the availability of soils with an historical and known history of manure application as found on long term plot sites located on scattered sites throughout the province. These soils are complemented by other manured soils from actual farms but where the historical aspects of the soil management are not as fully known.

Other parts of the study include laboratory analysis of a wide range of soils to establish the relationship between measured soil test phosphorous levels and potential phosphorous (P) mobility. This part of the study will determine whether a soil test alone can serve as a predictor for P mobility

"Field measurement for the project includes the establishment of two small surface runoff monitoring stations on livestock manured cropped lands," adds Heaney, with the Agronomy Unit of Alberta Agriculture. "This part of the project will help to confirm laboratory analysis regarding phosphorous mobility in the field and will provide an assessment of the significance of landscape parameters and natural hydrological processes on phosphorous mobility

The project is funded in part by the Canada Alberta Beef Industry Development Fund (CABIDF) and the Canada Alberta Hog Industry Development Fund (CAHIDF) for a period of two and a half years

Contact *Dan Heaney* *Douwe Vanderwel*
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Value-added products, the wave of the future

Alberta agricultural producers have always done an excellent job of producing the primary products our province is known for. From the major grains – wheat, canola, barley and oats to meats including beef, pork, poultry and lamb and eggs and dairy products, Alberta producers have consistently delivered high quality, safe and nutritious foods.

From the beginning though, producers and processors recognized the need to add value to the products that are grown here. Oils, pastas, flour, bacon, hams, chocolate milk, ice cream, yogurt and refined sugars are all processed products forming the basis of our food supply. In order to compete on the world market, however, there is increased pressure to increase the variety and number of processed or value-added products produced in Alberta

"There is a continuing evolution and development of our primary products," says Janice McGregor, rural development specialist – business, Morinville. "Recent additions to the food industry include Fibrimex, lower cholesterol designer eggs, flavored milk products with exciting packaging and labelling, pre-cut vegetable and stir fry meat packages, improved malting barleys, chicken nuggets, and consumer friendly labelling of beef cuts for retail trade.

"An increasing number of agricultural producers are diversifying into alternative livestock and crops. Marketing pressures dictate that they develop a variety of processed products to fill market niches and gain a share of the growing food industry. Ostrich and emu jerkies, wild boar sausage,

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bison burgers, and pheasant pate are taking their place in the competitive meat industry. Elk velvet capsules and other pharmaceuticals are also poised for development."

Fruit and berry syrups, jams, pie fillings, cake toppings and ciders provide additional income for fruit growers and u-pick operators. The vegetable and herb industry is seeing growth with pre-mix salads, herbal vinegars, hot house peppers and tomatoes, flavored sunflower seeds, herbal extracts and ginseng products.

"Food processors will have to work hard in order to increase their 'share of stomach' in the competitive food industry," adds McGregor. "New products that fill consumer demand for nutritious, convenient, safe and competitively priced foods will have to be developed. The challenge is to anticipate the changing needs and tastes of consumers. Premium, limited edition or artisan products that cut across a wide swath of categories including bread, beer, ice cream and coffee are increasing. A trend to 'clean cuisine' or products that are easy to prepare and create little or no waste or leftovers is also on the horizon."

Alberta Agriculture, Food and Rural Development staff are well prepared to serve the needs of the food processing industry. Rural development specialists - business are available to assist processors with product development, packaging and labelling concerns, market research and trend information. Resources such as the *Northwest Processor* newsletter provide processors with up-to-date information on all aspects of food processing including marketing, distribution, financing, pricing, food safety and equipment.

Programs such as *Taste of Success* assist emerging processors by providing feedback on the packaging, labelling, sale-ability and acceptability of their food products as well as an assessment of their business and marketing plans.

"By working together producers and processors will find new uses for the multitude of agricultural products produced in our province and continue to develop high quality food products that bridge the gap from the farm gate to the consumer's plate," says McGregor.

Contact: *Janice McGregor*
(780) 939-4351

Alberta manufacturer secures international business

Funding from the Alberta Agricultural Research Institute (AARI) has resulted in an Edmonton firm securing an international business contract.

J.P. Sunrise Bakery of Edmonton is now a manufacturer of cake bases for Dairy Queen International, supplying their entire North American market.

The intention of the project, funded jointly by AARI and by J.P. Sunrise Bakery of Edmonton, was to automate what had been a slow, labour-intensive operation – the cake base assembly procedure. The automation, it was hoped, would speed up manufacturing while raising consistency and lowering labour, in order to make the producer, J.P. Sunrise Bakery, more competitive in this market.

The technology was developed by Package Automation Corporation – owner Frank Webb, PLC electronic technician George Karafiat, and millwright Roger Comeau teamed together to develop the new value-added technology for J.P. Sunrise Bakery. The new technology, according to project manager Webb, opens a window of opportunity for PAC to market a fully automatic pie and cake line for the bakery industry.

As well, J.P. Sunrise Bakery, with its new automation capability, can source other potential markets that can use the production potential of this line. Alberta Agriculture, Food and Rural Development also benefits from the research, by now being able to show other potential value-added manufacturers that the technology exists in Alberta to produce this type of specialty product and machinery.

A bonus for Alberta Agriculture is that J.P. Sunrise Bakery will use Alberta products to produce these cake bases, thus adding demand for current and future Alberta made agricultural based value-added products.

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Package Automation Corporation
Gary Huising (780) 454-5797
JP Sunrise Bakery

Money for school – 4-H Scholarships

4-H members in Alberta have the opportunity to access thousands of dollars each year for their post secondary education. "Several corporate and private sponsors have donated money to assist 4-H'ers with university or college," says Carol Sullivan, provincial 4-H media and marketing specialist with Alberta Agriculture, Food and Rural Development.

The Farm Credit Corporation awards sixteen scholarships across Canada to help prepare young people to meet agriculture's challenges in the next century. Applicants must meet specific criteria and write a 1000 word essay on one of three topics. The deadline for applications is March 31, 1999.

Ivomec also provides 4-H'ers with scholarships. Applicants must meet specific criteria and submit an essay, video, recorded speech or poster with a leadership theme on a

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specified topic. The deadline for applications is May 14, 1999. Information on both the Farm Credit Corporation and Ivomec scholarships is available from regional 4-H specialists

"The 1999 Alberta Provincial 4-H Scholarship program offers 77 scholarships totalling more than $41,000," says Sullivan. Current or former members of at least two years that are planning to attend a post secondary institution full-time in the 1999-2000 school year should apply. Award amounts range from $175 to $1500. "These funds help 4-H'ers achieve their academic goals and personal dreams."

Downloading the Provincial 4-H Scholarship application from the Alberta Agriculture internet site is easy. Access it at: **http://www.agric.gov.ab.ca/ruraldev/4h/scholarship**

Applications must be mailed to the 4-H Branch by May 14, 1999. For more information on 4-H scholarships call (780) 422- 4H4H.

Contact: *Carol Sullivan*
(780) 422-4H4H

A nutrition primer

March is ***Nutrition Month*** in Canada. Since this year has been declared by the U.N. as the Year of the Older Person, Nutrition Month is also focusing on the nutrition needs of seniors. In fact, seniors' nutrient needs aren't really a great deal different than those for adults of other ages, except that there may be a decreased need for calories and an increased need for calcium.

"To meet nutrient needs when consuming fewer calories, many people take supplements," says Linda St. Onge, food scientist/nutritional with Alberta Agriculture, Food and Rural Development, Leduc. "While "nutrition" means a bottle of supplements to many people, the fact is that the food we eat can – and should – provide all the nutrients we need. It is important to choose the right foods, then store and cook them so that the nutrient content isn't lost."

Some of the cornerstones of basic nutrition knowledge, which help explain some of the rationale behind so many health recommendations are:

Macronutrients are the structures that make up the food, and provide necessary components for human bodies. Protein, fats, and carbohydrates are macronutrients. If a diet contains too little of the macronutrients, children fail to grow and adults waste away. When a diet contains too many macronutrients, weight gain is the usual outcome.

"Fibre is also included in this broad definition although, strictly speaking, it's not a nutrient," says St. Onge. "Fibre is part of the structure of many foods. The human metabolism can't break this structure down and use the atoms for other structures because it doesn't have the necessary enzymes. Some types of fibre, such as pectin, are soluble in water, so that the molecules may float around and rearrange themselves. Other types of fibre, such as cellulose, are not soluble. Because it can't be broken down and digested, all fibre passes through the human digestive tract largely unchanged. The important function of fibre in the human digestive process is that it may trap components such as digestive waste or bad cholesterol and remove them from the body."

Micronutrients are components such as vitamins and minerals which are needed in very small quantities

Minerals originally come from the earth's crust and can't be destroyed – not even by burning. Sometimes food grown in one area of the world will contain a mineral while the same food grown in another area of the world will be deficient in that mineral

"For example, the salt we consume in Alberta is iodized, because in areas like the prairies, there is very little iodine. Goitre, caused by iodine deficiency, used to be a health problem," continues St. Onge. "In middle eastern countries, some children don't grow and mature because zinc, needed for the human growth hormone, is lacking in that area."

A characteristics of human digestion is the ability to adjust how much of the minerals consumed are absorbed, depending on how much the mineral is needed. For someone who is deficient in iron, their body will adapt and try to absorb as much of the available dietary iron as possible. Animal sources of minerals are often the best sources for humans, because the animal has already processed and assimilated the mineral in a way that is easy for humans to absorb. Iron found in meats and calcium in milk is used much more efficiently than vegetable sources of the same minerals.

"Minerals are preserved and recycled in the body as much as possible rather than being eliminated," says St. Onge. "For this reason, large intakes of some minerals, particularly if they come from supplements, can be harmful because they are deposited in the body's soft tissues. Minerals found in foods are less likely to be present in amounts large enough to cause problems."

Storing food won't affect its mineral content, but some minerals will leach into cooking water and if the cooking water is discarded, the mineral is lost. One example is the iron in potatoes – that's why it is recommend to cook potatoes in a small amount of water without peeling them

Vitamins are either fat-soluble or water-soluble, and they can be destroyed by such things as heat or light. Fat-soluble vitamins are A, D, E, and K. Humans need some fat in their diets to act as carriers for those vitamins, which are then stored in body tissue. Vitamin A is found in milk but when the fat is removed from the milk, so is the vitamin A. It's usually added back along with vitamin D

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"Our metabolisms can make vitamin A from precursors found in vegetables, such as carrots," adds St. Onge. "Our bodies can also make their own vitamin D as long as we're exposed to sunlight. However, growing children may need more vitamin D than they can manufacture, and that's why it's added to milk. We make our own vitamin K and don't need a food source of it. Vitamin E is found in the germ portion of cereals, so whole grain cereals are a good source."

Water-soluble vitamins are thiamine, riboflavin, niacin (the B vitamins) and vitamin C. None of the water-soluble vitamins can be stored in the body; a daily source is required. Since they are not stored, there's no point in consuming large amounts, because, when there's no place to use them, the body eliminates them. Water-soluble vitamins are more fragile than other nutrients and can easily be lost through heating, oxidation (long storage) or exposure to light. That's why milk is sold in opaque containers; the riboflavin is destroyed by exposure to light.

"The Canadian food supply is the best in the world, abundant and safe," says St. Onge. "As nutrition knowledge changes, so do recommendations about dietary intakes and about which foods might be fortified with nutrients to maintain our health. With technological advances, we're beginning to see possibilities for "transplanting" some beneficial components from sources we don't usually consume into foods we do eat. In the meantime, the best guide to nutritional health is still Canada's Food Guide to Healthy Eating."

Copies of Canada's Food Guide to Healthy Eating are available at local health centres, or by writing to Alberta Agriculture, Food and Rural Development, Publications Office, 7000 - 113 Street, Edmonton, AB, T6H 5T6.

Contact: Linda St. Onge (780) 980-4873

Come Rope the Web – www.agric.gov.ab.ca

Alberta Agriculture, Food and Rural Development's website, often referred to as the Ropin' the Web site or RTW, continues to be one of the largest and busiest agricultural Internet sites in the world. On the morning of Dec 28, 1998, the site had its one millionth user session for the year.

"In 1998, RTW had 11.9 million hits. During 1997, there were 4.8 million hits compared with 2.1 million in 1996, says Ron Weisenburger, with Alberta Agriculture's policy secretariat. "Last year's Regional Advisory Services review found that about 80 per cent of Alberta farmers that use the Internet use the Alberta Agriculture site regularly. Most information-aggressive agribusinesses and farmers are already on the Internet. RTW is the most recognized and most used agricultural site by western Canadian farmers. About one farmer in three in Alberta is now on the Internet. The Internet has become a mainstream information provider."

The site had a new look introduced in April 1998. The new design takes advantage of technologies introduced since the original design went on-line in January 1996. These changes make it easier for customers to find and get to the information they need even faster than before. These changes were made in response to customer feedback during evaluation sessions in late 1997. Response to the changes has been very positive.

"Additional content is being added and existing information is being updated daily," continues Weisenburger. "Literally hundreds of staff in Alberta Agriculture are involved in developing the information which is on the department website. The result is a broad range of production, marketing and farm management information, and direct e-mail contact with specialists to get follow-up information or to ask questions. It is even possible to subscribe to receive a bi-weekly e-mail listing all of the new information postings. To access this service, go to ***What's New*** and subscribe on-line."

Staff at Alberta Agriculture also find quality, relevant information from other Alberta organizations and from around the world to link to. In the ***Links to Other Sites***, links to hundreds of other web sites can be found. Another set of links to other places is found in the ***General Store*** where a wide range of Alberta agri-businesses and products for sale can be accessed.

"A ***Breaking News*** section has been added to the site," says Weisenburger. "Staff can now place information directly on the site without time delays. Staff also add ***Coming Events*** to the site from their desk. The result is even more timely information."

Ask the Expert is a way for people to access department specialists when they have a question but don't know the Alberta Agriculture staff well enough to know who has the answer. This page alone had over 150,000 hits in 1998.

Several new calculators have been added during the past year. A ***Herbicide Selector*** application is being developed and is scheduled for release in April 1999.

"Ropin' the Web has won a Canadian Information Productivity Award of Excellence, a Premier's Award of Excellence, the gold medal in the federal government sponsored Distinction 97 Awards," adds Weisenburger. "Ropin' the Web has recently been selected as the site of the week by Alberta Report and by Agstar.com"

Take a "test drive" on the information highway. Visit Ropin' the Web – The Greatest Aggie Internet Site in the World. The address is **www.agric.gov.ab.ca**

Contact: Ron Weisenberger (780) 422-1821
Gerard Vaillancourt (780) 422-6796

Alberta agriculture estimates

Many of the estimates listed were jointly prepared by Statistics Canada and the Production Economics and Statistics Branch of Alberta Agriculture, Food and Rural Development.

Cattle and calves:

- Alberta continues to lead the country in cattle and calf inventories (4.880 million head), followed by Saskatchewan (2.385 million head) and Ontario (2.095 million head)
- currently, Alberta accounts for more than one-half (53.6 per cent) of the total Western Canadian herd of 9.110 million head and 38.1 per cent of the national total of 12.810 million
- as of January 1, 1999, the estimated total inventory of cattle and calves on farms in the province was 4.880 million head, down 1.6 per cent from the January 1, 1998 figure of 4.959 million
- Alberta reported a total of 103,000 milk cows as of January 1, 1999, down 1.9 per cent from the previous year
- increasing milk productivity was among the factors influencing the decline

Pigs:

- across Canada, Alberta ranks fourth in pig inventories, behind Quebec (3.615 million head), Ontario (3.441 million head) and Manitoba (2.100 million)
- Alberta currently accounts for approximately 37 per cent of the estimated total western Canadian pig population of 5.061 million head and close to 15 per cent of the national total of 12.473 million head
- estimates at January 1, 1999, show the size of the Alberta herd growing by 0.6 per cent, with the total number of pigs at 1.854 million head, compared to the year ago total of 1.843 million
- the increase in inventory numbers was caused to some degree by the sharp decline in hog prices experienced in the last quarter of 1998. Producers held back on sales in anticipation of stronger prices in the new year

Sheep and lambs:

- there appears to be some flock rebuilding in Alberta. The January 1, 1999 estimate puts the provincial total at 151,900 head, up 0.8 per cent over 1998
- Alberta currently accounts for roughly 47 per cent of the total estimated sheep and lamb population of 321,100 head in western Canada, and about 23 per cent of the Canadian total of 654,900 head. The province ranks second behind Ontario (178,700 head) in sheep and lamb inventories
- ewes and market lambs show increases in 1999. The number of breeding ewes in Alberta was estimated at 99,300, up 1.1 per cent from 98,200 in 1998. For market lambs, the total was 34,900 head, up 2.6 per cent from 1998

Beekeeping

- preliminary estimates show 1998 to be a record year, 32 million pounds of honey being produced, the highest ever in the history of the industry in Alberta and 35 per cent higher than in 1997 (23.6 million pounds), and 1997 production was 17 per cent higher than 1996 production
- 1998 estimates are that Alberta produced 34 per cent of the national total of 93.6 million pounds of honey
- the total value of Alberta produced honey and wax in 1997 was $26.7 million (32 per cent of the national total of $83.9 million). Comparable estimates for 1998 are not yet available
- in 1998, there were 725 beekeepers in Alberta. There were an estimated number of 11,192 beekeepers nationally
- in 1997, Alberta reported the managing of 175,000 colonies. In 1998 the number of bee colonies is estimated at 200,000

Estimates of the 1998 crop production of principal field crops:

- in 1998, all wheat production (winter wheat, spring wheat and durum wheat) totalled over 6,752 thousand metric tonnes (248,100,000 bushels), down slightly from the 1997 total of 6839 thousand metric tonnes
- oats production is estimated at 771 thousand metric tonnes for 1998 (50,000,000 bushels)
- production of barley is estimated at almost 5,661 thousand metric tonnes (260,000,000 bushels) for 1998, down from production totals of 6,271 thousand metric tonnes in 1997
- canola production increased in 1998 to close to 2,450 thousand metric tonnes or 108,000,000 bushels. Production figures for 1997 were 2,109 thousand metric tonnes
- dry peas showed a significant increase in production for 1998. Production in 1997 was almost 422 thousand metric tonnes, and is estimated at 488 thousand metric tonnes in 1998 (17,930,000 bushels)

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Agri-News

March 22, 1999

Native Plants – a natural resource

The biggest problem for reclamation practitioners is acquiring native plants and grasses to use in the reclamation process. Not many people know how to produce native plants and seed so there isn't a lot of native plant seed nor many seedlings available.

A new publication ***Growing Native Plants of Western Canada, Common Grasses and Wildflowers*** pulls together information generated during a 10-year native plant development project.

"The native plant development project generated a considerable amount of information on propagating and growing native plants and native plant culture requirements, how to cultivate native plants under field conditions," says Michelle Pahl, native plant specialist at the Alberta Research Centre, Vegreville. "Most of the species discussed in the book show real promise for site reclamation. The book gives basic information on how to grow, cultivate and propagate native plants and grasses."

Demand for native plants has been steadily growing for the last 15 years, but has dramatically increased in the last five years. Prices for native plant seedlings and seed are increasing along with that demand. The book takes an in-depth look at 48 species of native plants that show promise for ecological repair and site reclamation.

"Depending on the grower's situation, native plants can be cultivated in greenhouse situations and under field conditions," says Pahl. "Propagating and growing native plants takes time and care. Albertans thinking of growing seed may want to start on a smaller scale, depending on the species, and experience some measure of success before expanding their operation."

The book, the culmination of almost 30 years work of the two principle authors, Michelle Pahl and Ann Smreciu, was designed to help those interested in collecting, growing and commercially producing native plants.

The new publication contains:

- plant identification, including photographs of mature plants, seedlings and seed and descriptions of plants at all stages
- seed collection
- seeding rates

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Alberta
AGRICULTURE, FOOD AND RURAL DEVELOPMENT

- seeding equipment
- germination requirements (how to overcome dormancy)
- ecological context (when to expect flowering and different plant stages in the wild)
- geographic distribution
- plant communities or plant associations each native plant is in
- how to harvest
- seed cleaning
- the plant's role in reclamation (provides erosion control)
- forage value the plant provides for wildlife and livestock

The authors acknowledge the help and assistance of the many people who provided photos for the book. Special mention is given to Denise Pewarchuk and Carcey Rowand, technical assistants. Heather Gerling, land reclamation specialist with Alberta Agriculture, Food and Rural Development, provided support and coordination in getting the project to the publication stage. Dave Orey, communications specialist with Alberta Agriculture, was the publication coordinator. The efforts of all these people helped produce a book that will be a valuable resource for many Albertans.

"Native plants, generally, are a very under-utilized resource in Alberta," concludes Pahl.

The cost of ***Growing Native Plants of Western Canada, Common Grasses and Wildflowers*** is $30 plus GST. It is available from Alberta Agriculture's publications office, 7000 - 113 Street, Edmonton, AB T6H 5T6. To order by phone, call toll free 1-800 292-5697 or 427-0391 in the Edmonton area. Please add $2 plus GST for shipping and handling. VISA and MasterCard are accepted.

Contact: *Michelle Pahl* *Ann Smreciu*
(780) 632-8209 *(780) 413-9280*

Calling all top forage producers

Alberta is well known for its excellent forage and its forage producers. It's time again for the annual Alberta Dairy Congress's Forage Competition. This year, marks the 13th Annual Alberta Dairy Congress with a fitting theme of ***Moollennium Here We Come.***

"As in past years, the Alberta Dairy Congress is awarding generous amounts of money to the winners," says Fred Young, forage specialist with Alberta Agriculture, Food and Rural Development.

The Congress runs June 2 to 4, 1999 in Leduc at the Black Gold Centre. Entries for the forage competition will be accepted until March 31, 1999, so it's time to get that sample ready!

The Forage Competition has six classes:

- legume hay (>70% legume)
- grass-legume hay mix (<70% legume)
- grass hay
- haylage
- cereal silage
- export hay (timothy)

"Forage producers can enter one exhibit per class and there is no entry fee," says Young. "The competition is made possible because of the excellent sponsorship from Enviro-Test Laboratories. Enviro-Test Labs do the lab analysis for the competition."

Prizes in each class are $100 for first place, $50 for second place and $25 for third place. Sponsors for the individual classes include: Prairie Seeds Inc., Grow Tec Ltd., Cunningham Fertilizers, Leduc Seed Cleaning Plant, Alberta Ag-Bag ltd., Pioneer Hi-Bred Ltd., Transfeeders, and Pickseeds Canada Inc. Other sponsors for the Forage Competition are Parkland Fertilizers and UFA-Leduc. The Alberta Dairy Congress wishes to thank all of the sponsors who make this annual event possible.

"Entering a quality forage sample is as easy as dropping an entry, or entries, off at the nearest Alberta Agriculture office," adds Young. "Agriculture staff will ensure that the sample gets to Leduc quickly and efficiently.

"Hay entries must be securely bound and tied in a cardboard box. A minimum of one-half bale is needed. **Loose Hay Will Not Be Accepted!** A proper sample for lab testing cannot be taken from loose hay. Silage samples must be submitted in a suitable airtight container, and two kilograms or five pounds is required, preferably frozen to preserve quality. Please clearly label the sample with name, address, crop kind, cut and class."

For more information on the forage competition, or for labels and brochures, contact the nearest Alberta Agriculture district office.

Contact: *Fred Young*
(780) 727-3673

Don't expect an early spring

As we pass mid-winter and look forward to spring and the end of calving season and the beginning of seeding time, thoughts turn to what the spring weather will be.

"The forecast for spring 1999 in Alberta, based largely on ocean conditions, is for near or slightly cooler than normal temperatures and near normal precipitation," says Peter Dzikowski, agri-weather specialist with Alberta Agriculture, Food and Rural Development. "An early spring, as experienced last year, is not expected."

Long lead seasonal forecasts for the next three to six months, or even longer, are available and some demonstrate a level of skill that makes them worth considering.

"Producers and farmers wondering how good long-lead seasonal forecasts really are should keep in mind that temperature forecasts are more reliable than precipitation forecasts," says Dzikowski. "Precipitation is more difficult to predict. Accuracy in spring temperature forecasts over the past two years for Alberta was very high while the summer forecast accuracy was poor.

Forecasts are made using various tools, ocean conditions in the tropical pacific being one of the most useful.

"Scientists think the "atmospheric memory" is linked to the oceans," adds Dzikowski. "The ocean and the atmosphere interact, which is one of the reasons for all the fuss and interest in things like El Nino, La Nina and the equatorial Pacific Ocean. El Nino is the name for a large area of unusually warm water in the equatorial Pacific Ocean off the coast of South America. La Nina is the opposite, when there is unusually cool water in that area.

"As scientists continued to learn more about the oceans and global weather conditions from satellite data, certain patterns were observed. One strong pattern is the link between El Nino and winter conditions in Alberta. El Nino usually leads to mild, dry winters in Alberta,such as in 1997/98. In contrast, La Nina is usually associated with cooler or near normal winters with more snow."

The relation between ocean conditions and weather in Alberta is a contributing factor, however, this relationship is weakest in the summer and strongest in the winter and spring.

"Weather patterns are seldom consistent over an area the size of the province of Alberta," continues Dzikowski. "Farm and ranch managers must consider their local situation when interpreting weather forecasts. However, looking at forecasts can help increase the odds of implementing successful management strategies."

This year producers should not be lulled into relaxed spring management practices because of the early spring we had last year and the mild winter this year. Given the higher probability for a more normal Alberta spring (cooler and later compared to last year) producers should ensure they have adequate feed supplies to carry livestock until spring grass growth is adequate. Adequate bedding supplies for cow herds that are calving before or during spring breakup must also be in place. On the plus side, spring water supplies should not be a problem as much of Alberta has received normal or above normal snowfall. Creeks will soon be flowing and dugouts filling.

Management advice for extending winter feeding supplies and planning for later spring grazing are available from Alberta Agriculture beef and forage specialists. Long lead weather forecast information is available through the Alberta Agriculture's Internet site section titled ***Land, Water and Climate*** at **<http://www.agric.gov.ab.ca>**. Contact your local Alberta Agriculture office for more information

Contact: Peter Dzikowski
(780)427-3594

4-Her's help Alberta win Clean World Award

Alberta Transportation and Utilities (AT&U) received a ***Clean World Award*** in recognition of its longstanding commitment to a cleaner environment through the annual Highway Clean-up and the Adopt a Highway programs. AT&U was nominated for the award by members of **PITCH-IN ALBERTA**, a local organization of **PITCH-IN CANADA**.

"Every year, 4-H members join other Albertans, the Junior Forest Wardens, Scouts Canada, businesses, not-for-profit community groups and families to help keep Alberta clean by spending a day picking up and pitching in litter along the provincial primary highways," says Carol Sullivan, provincial 4-H media and marketing specialist with Alberta Agriculture, Food and Rural Development.

The Clean World Award is presented by **PITCH-IN CANADA** on behalf of Clean World International, an organization of non-governmental groups founded in 1976 to promote programs for waster reduction, recycling and waste management. This award is presented to individuals, governments, schools, businesses or business organizations that have shown a long-term commitment to improving Canada's environment.

The award is approved by His Excellency the Right Honourable Romeo LeBlanc, Governor General of Canada and patron of **PITCH-IN CANADA**. The Clean World Awards were first presented in 1994 with 31 recipients across Canada.

The successful Adopt-a-Highway program now has 660 adoptions covering 2,344 kilometres of primary highways, that's 17 per cent of Alberta's 13,825 kilometres of primary highway system. The adopted sections of highways are cleaned at least once a year.

During the 1998 Annual Highway Clean-up Program, approximately 11,500 participants from 429 organizations filled close to 51,000 bags with litter. The litter was collected from over 6,600 kilometres of primary highway right-of-ways.

This year, the 23rd Annual Highway Clean-up Campaign takes place on May 1, 1999. If weather conditions are poor, the Clean-up will take place on May 8.

Contact: Carol Sullivan
(780) 422-4!I4H

Managing insects in greenhouses

Integrated pest management (IPM) is commonly used to manage insects in greenhouses and field crops.

"Right now, IPM works better in controlled environments than in field conditions, says Kris Pruski, entomologist at the Crop Diversification Centre North, Alberta Agriculture, Food and Rural Development, Edmonton. "It involves: monitoring of pests, releasing suitable predator or parasites, spot treating to knock the population down and keeping an eye on how the insect populations are behaving. More research work, however, is being done to find adequate IPM methods to control insect pests in fruit orchards and field vegetables."

For producers considering IPM methods, there is a series of predators and parasites available to control insects in greenhouse crops.

"Pirate bugs (*Orius* spp.), for example, are very efficient predators of greenhouse thrips. They pierce the thrips and suck them dry," explains Pruski. *"Encarsia formosa*, a parasitic wasp, controls greenhouse whiteflies very effectively. Greenhouse aphids are easily controlled by a delicate midge *Aphidoletes aphidimyza* and by ladybugs. This also works very well in a back-yard garden situation. One ladybug or its larva can eat five to eight aphids per day. There are special predatory mites available to control spider mites and most greenhouse growers are using entomopathogenic nematodes to keep fungus gnats under control."

"IPM will be more successful if crop health is good to excellent" says Dr. Mohyuddin Mirza, greenhouse crops specialist, Crops Diversification Centre North, Alberta Agriculture, Food and Rural Development, Edmonton. "This means plants are hardy, have balanced growth and are not too soft. Soft, vegetative growth is conducive to the development of insects and they can multiply faster under these conditions."

"Release the predators or parasites as soon as you see the first sign of insect infestation, says Pruski. "Where there is one whitefly, the chance is that there are 1,000 others."

Contact:	*Kris Pruski*	*Mohyuddin Mirza*
	(780) 415-2316	*(780) 415-2303*

SWOTing Alberta's diversified livestock industry

The acronym, SWOT analysis is a term frequently used in planning exercises. It's a process that addresses the **S**trengths, **W**eaknesses, **O**pportunities and **T**hreats of a particular entity or decision that needs to be made. It's like putting all the cards on the table at one time to come to an informed decision.

"The diversified livestock industry in Alberta has come a long way over the last five years, says Kerry Engel, rural development specialist - business with Alberta Agriculture, Food and Rural Development. "The industry has grown considerably and the amount of research information available for prospective investors has also increased. It's not surprising to hear reports on this industry that emphasize only the strengths and the opportunities. To make sound decisions, however, it's important to be aware of the weaknesses and threats inherent to an industry. No business is without weaknesses and threats and many times these weaknesses can be turned into an opportunity.

"Let's take a SWOT at the diversified livestock industry in Alberta."

Strengths:

- it's a young industry with great potential for growth
- in Alberta there is an available land base and a supply of feed grains for expansion
- there is access to European and Pacific Rim countries and competitive transportation costs

Weaknesses:

- there is a high cost of production and processing associated with diversified livestock
- there is limited access to EU (European Union) federal processing facilities with reasonable processing fees
- there is a need for ongoing research in production, management and nutrition
- there is a lack of domestic consumer demand and awareness
- markets for meat and by-products are underdeveloped
- volumes of animals are too low to make by-product processing feasible
- the industry consists of many fragmented marketing initiatives
- there is inconsistent product quality
- products are priced too high and there is no established pricing system

Opportunities:

- there are opportunities for the production of feedstuffs for all species of alternative livestock species in order to provide distinct meat flavours
- the European market offers potential for 'hormone free and residue free' products
- there is global demand for value-added products
- there are health conscious consumers seeking red meat alternatives

Threats:

- there is increased world production and competition
- Alberta's competitors have established markets in the areas we would be targeting
- there is a world crisis impacting demand for product and disease outbreaks are a serious threat

"Albertans wanting to research diversified livestock, may want to get a copy of a new report titled ***Diversified Livestock Species Statistics for Alberta in 1998***," adds Engel. "There are also several Ag-Venture profiles dealing specifically with diversified livestock."

Copies of these publications are available at all Alberta Agriculture district offices and through the publications office, 7000 - 113 Street, Edmonton, Alberta T6H 5T6

Contact: *Kerry Engel*
(780) 349-4465

Agri-News Briefs

Sheep extension courses filled to capacity

A two-day Beginner Sheep Production course at Olds College drew a total of 41 students to sessions held in February and March. Twenty students from across Alberta and some from Saskatchewan attended the course in Olds again this February, and another nine students completed the course at Lakeland College on March 6 and 7, 1999. The beginner course consists of one and one-half days in the classroom and an afternoon of hands-on instruction. Students learn how to catch a sheep, tip it up and trim its feet, as well as learning how to condition score, vaccinate, ear-tag, dock, castrate, stomach-tube and perform other sheep management practices. The course will run again on April 17 and 18, 1999 in Olds. An intermediate course featuring speakers on genetics, ration balancing, grazing, marketing, flock health and synchronised breeding ran in November 1998 and is offered again on June 5 and 6, 1999. For further information on these courses, contact the Dr. Cathy Gallivan at (403) 224-3962, Olds College 1-800-661-6537 ext. 8344.

Rare sheep at Ukrainian Village

Two, rare Oxford sheep were donated to the Ukrainian Village in mid-January. The sheep arrived in mid-February and now call the Alberta historic site home. Mr. Russ Dow of Bowmanville, Ontario, a well known sheep breeder and judge and chairman of Rare Breeds Canada donated the sheep to help preserve this heritage breed. Oxford sheep were once the third most commonly registered sheep in Canada, primarily used for meat purposes, it also had a higher quality fleece than Hampshires and Suffolks. The donated sheep, both bred ewes, will lamb in early April, in time for the school program season. For further information, contact Arnold Grandt, head of community and corporate relations at the Ukrainian Cultural Heritage Village, (780) 662-3855.

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Agri-News

March 29, 1999

Adult farm apprenticeship – Green Certificate style

More than 100 adults are currently working as apprentices on farms in Alberta. Through Green Certificate Program, they are learning specific skills in their chosen production specialty.

"The Green Certificate Program, is a competency-based program that helps Alberta adults develop the skills necessary to become farm technicians, supervisors and farm business managers," says Garry Clark, farm training specialist contracted with Alberta Agriculture, Food and Rural Development, Barrhead. "Through the apprenticeship training system, Albertans can gain competence in production areas such as: cow-calf, feedlot beef, dairy, swine, sheep, field crops and irrigated crops. The program is also a credit course offered in Alberta high schools."

The skills profiles and training curricula come from focus groups of successful Alberta farmers, operating in partnership with Alberta Agriculture and the program is administered by Alberta Agriculture.

"This program can be used in many ways," says Clark. "It is being used by farm managers as part of their farm succession planning with adult family members. Other managers use the program curriculum in developing a farm job structure, job descriptions and employee advancement policies. As well, the Green Certificate program is the primary training system used on an increasing number of Alberta farms."

Learning by doing is a satisfying, effective way to gain work skills and apprenticeship training accommodates many different learning styles. "Regular study of resource materials and attendance at short courses combined with continuous practical, hands-on experience is an excellent training system," adds Clark. "A well-trained adult family member or non-family employee usually is motivated, willing to accept responsibility and improves the profitability of the trainer's farm."

There are three levels of training in the program: Level 1 – technician; Level 2 – production supervisor; and, Level 3 – agri-business management. A list of required skills is provided for each production specialty and each level within the specialty. Prior learning and training is recognized and trainees can proceed as quickly as the 'partners' wish.

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Alberta

Green Certificate training farms must have adequate equipment and facilities to provide training in the skills listed in the curriculum. The farm manager and trainer must be interested in developing the family and non-family staff to their full potential.

"There is no tuition fee for adult training in Green Certificate because Alberta Agriculture funding covers course fees and material costs," says Clark. "Albertans who are interested in a career in agriculture and would like additional information on the Green Certificate Program are encouraged to contact a regional Green Certificate field officer."

Regional Green Certificate field officers:

• Southern region	John Calpas – (403) 320-3311, Lethbridge
• Central region	Cara Anderson – (403) 507-7928, Olds Janet Veno – (403) 556-4663, Olds
• Northern region	Walter Scott – (780) 853-8223, Vermilion Garry Clark – (780) 674-8213, Barrhead
• Peace region	Peggy Johnson – (780)35-6737, Fairview

Contact: *Garry Clark* *(780) 674-8213*

Robert Hornbrook *(780) 427-4218*

February warm and dry

February is the month when Alberta producers start thinking about spring: calving begins, feed stocks are checked and assessed, machinery repairs are seen to and plans for the coming growing season are finalized. It is a month that can hit Alberta with deep-freeze weather; heavy, wet snowfall; or be as warm and mild as a day in May. In 1999, February weather included above normal temperatures and below normal precipitation totals.

"Temperatures were near normal in northern regions and above normal in southern regions for the first week of February," says Peter Dzikowski, agricultural weather resource specialist with Alberta Agriculture, Food and Rural Development, Edmonton. "Temperatures across the province climbed well above normal during the second week, and remained near normal for the third week. The end of February saw unseasonable warm temperatures returning, especially in Southern Alberta, where temperatures reached as high as 15.3 degrees Celsius at Vauxhall. Bow Island reported a monthly temperature departure of 7.5 degrees, the highest in the province. The north west region reported the lowest temperature departures, where temperatures were 1.4 to 3.2 degrees above normal."

The provincial average temperature was 3.3 degrees above the 1961 to 1990 average of -9.3 degrees C. Most Alberta locations reported monthly average temperatures 1.4 to 7.5 degrees above normal.

The provincial average precipitation of 6.3 mm was 11.5 mm below the 1961 to 1990 average of 17.8 mm.

"All agricultural regions in the province reported below normal precipitation," says Dzikowski. "The Peace region was the wettest, receiving 15.7 mm of precipitation, about 75 per cent of normal. Southern and Central regions were the driest, receiving less than one third of normal February precipitation."

Provincial averages are based on data recorded at 55 Environment Canada climate stations across Alberta.

More information about Alberta's weather is available on the Internet. For on-line information, visit the Alberta Agriculture website at http://www.agric.gov.ab.ca

The agri-weather web page is accessed by clicking on ***Land, Water and Climate*** and then ***Climate and Air Quality***.

Contact: *Peter Dzikowski*
(780) 427-3594

Match the operation to the resources

At the Camrose Bull Congress, a one-day meeting held in February, beef producers had the chance to listen to a presentation on ***Matching Your Operation to Your Resources***, presented by Wyatt Swanson from Provost.

"Swanson indicated that the keys to a successful beef operation is to identify resources," says Bill Grabowsky, beef specialist with Alberta Agriculture, Food and Rural Development, Wetaskiwin. "The most important factors identified during the presentation were the human and marketing resources. A particular advantage in either of these areas should be identified and their potential maximized."

Producers in the audience were challenged to produce calves at the lowest possible cost. "With the current troublesome buying power of the beef dollar, the market is flat and net farm income is going down," continues Grabowsky. "Producers are working five times as hard and making less. However, there is a tremendous opportunity for cow-calf producers to market calves since Alberta has a large feeding industry and several large packing plants need more calves."

The key to cow-calf production is to know the cost of production. The key to survival is knowing the costs and being able to cut them in the right place.

Swanson indicated that feeding costs can be reduced by knowing what's available in the area. Chaff and straw have tremendous potential and chaff in his area has one and one-half times the value of straw. Available chaff within 10 miles of an operation usually costs $5 per acre. The grain producer benefits by turning around and using the $5 for weed control.

Cont'd on page 3

This system works by making high quality feed, like alfalfa silage, available while still using low quality products like chaff. 'Large-volume' cows, that can consume roughage in large quantities are much more valuable in this situation, and there should be no room for 'weasel-gutted' cows.

"The value of nutrient recycling was also stressed at the Congress," adds Grabowsky. "Feeding cows on the land and making manure work for the producer are part of this nutrient recycling. Using a portable windbreak and bunk system for 500 - 600 cows, means that the herd can be moved around all winter. The value of manure is quite high when put back onto the land in this low-maintenance fashion. Swanson stated that if a cow could drop manure and urine on every two square yards of land, the result would be two years of fertility."

The biggest drain on human resources in a cow/calf operation is at calving time. Many producer's herds are starting to calve. Economic and human resource management could include two people calving out and tagging calves and after one day of calving, turn cows and calves out to pasture with stockpiled forages with a bit of supplementation. Splitting each quarter section into 40 acre parcels and rotated every week should result in good nutrient recycling cover. Fall rye on sandy soil can also be used for spring grazing.

"Prevention is always on a producer's mind," says Grabowsky. "After one month of grazing, animals should be brought to the yard and processed. Shots that are normally given in the fall are given in spring. Swanson says that prevention of diseases is his main concern."

The ability to graze alfalfa is one of the major factors in keeping production costs down. One month into the calving season, cows need high quality pasture to put on flesh and cycle. Swanson feels that alfalfa is the key. Calves on grass and alfalfa gain 2.9 pounds per day while on native pasture they gain 1.9 pounds per day. Bloat can be a concern and producers are advised to not graze alfalfa until confident in doing so. Calves can bloat at 300 lbs of weight.

"Early weaning is important and it's recommended, under his program, to wean calves in September," says Grabowsky. "It works best to takes the cows from the calves – not vice versa. When possible, putting in "trainer cows" with the weaned calves helps them get over the weaning stress. A booster vaccination program is also used at this time. Calves can be fed out to slaughter weights at home."

It is important for a producer to create a year-round program that matches resources with the beef cattle operation. Cutting input costs can pay off.

Contact: *Bill Grabowsky*
(780) 361-1240

Fertilizer response of irrigated alfalfa in Alberta

Alfalfa hay removes more phosphorous and about 10 times as much potassium from soil as cereals and oilseeds, where only the seed is removed. Alfalfa roots deeper than annual crops and can either fix its own nitrogen, enriching the soil at the same time, or, on high nitrogen soils, remove large amounts of nitrogen. The fertilizer requirements of cereals is well known: much less is known about fertilizer needs of alfalfa.

"A survey of 99 irrigated alfalfa fields was conducted in southern Alberta from 1989 to 1992," says Colin McKenzie, soil and water agronomist at Alberta Agriculture, Food and Rural Development's Crop Diversification Centre South in Brooks. "Nutrient levels were compared to Alberta Agriculture standards and the alfalfa tissue nutrient levels were compared to the American Society of Agronomy standards."

In the fields surveyed, soil phosphorous levels were low in 70 per cent of fields tested, but the tissue phosphorous levels were deficient in less than half of tested fields. Soil potassium was marginal on only 12 per cent of tested fields, and adequate on the remainder, while the tissue potassium was low in most of the fields tested. Nitrogen levels were low in nearly all the fields tested, yet the tissue nitrogen was low on only one per cent of the fields, indicating that the crops were obtaining adequate nitrogen from the air.

"As a result of the survey, a field study was conducted to measure the increase in forage yield from various fertilizer rates and application methods," says McKenzie. "Six fields were selected in 1994 for phosphorous experiments. These were one-year old stands that tested low for the available phosphorous. Three of these fields also tested low in available potassium and were used to test potassium responses. In 1996, three new fields representing a wide range of soils, ranging from a loamy sand to a clay were selected for the experiments."

"Fertilizer treatments were either broadcasted or banded," continues McKenzie. "Banding was done with a zero till disc drill to a depth of 1.5-2 cm, in bands 20 cm apart. Forage harvests were done before the farmer harvested the total field, and tissue samples were taken at this time.

"At the conclusion on the trial, the results indicated that annual applications of phosphorous for each of three years gave similar yields or even slightly more that an single batch application. In the second or third year the annual application gave higher yields than the one batch application. Shallow banded phosphorous treatments were equally as effective as broadcast treatments. About two thirds of the soils which tested low in available phosphorus gave increases in yield with phosphorous fertilizers."

Cont'd on page 4

Soils with deficient, marginal or adequate levels of potassium produced alfalfa with deficient levels of tissue potassium. These same soils did not give significant increases in the forage yield with potassium fertilizers. A possible reason why tissue uptake of potassium is low and yet yield reduction does not occur, could be because soil and air temperatures in southern Alberta are lower that the areas in the USA where potassium tissue levels were established.

Nitrogen fertilizers slightly increased the forage yield in the first harvest after applications. Measurements were not made to determine how much of this increase in yield was due to the increased weed growth.

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Marketing a farm or agri-business

Many farms offer special services that require marketing initiatives beyond those used for traditional commodities. Marketing plans can help producers to maintain or enhance their market.

"Knowing target audience and understanding the elements and tools used to design an effective marketing plan is very important to successful marketing," says Kerry Engel, rural development specialist - business, with Alberta Agriculture, Food and Rural Development, Westlock. "The key to implementing a successful approach is to use flexible and affordable techniques that fit the product and the target audience."

Elements of a promotional plan include: goals, target audience, marketing tools, a marketing calendar and then implementing, monitoring, and revising the plan.

"Goals outline how the business will develop, where it will be in the future or where it will stay socially, economically or politically," says Engel. "Objectives are more concrete. They are specific to a single factor, such as increasing a customer base to 100 at a u-pick business or selling five more bulls in the next year for a cattle operation."

Identifying the target audience is a crucial step for success. Customers may never be reached if those customers are not known. For example, if a business operator knows that the people picking berries at a u-pick operation are generally women 30 to 60 years old, working and or living in the closest town - this information influences everything from how and where the business is advertised to when the business is open. If most of the clients work in offices during the day, a late night picking, till 8:00 p.m. may be advisable. Advertising may include distributing brochures to the banks and offices in the surrounding towns where the target audience works. The operator may consider offering babysitting on the weekend as a value-added service for the business' target audience.

Tactics, the specific marketing actions taken to advance a goal, could include a slogan, logo, personal and impersonal marketing. Personal marketing tactics may be seminars, personal selling, networking or trade shows. Impersonal marketing tactics could include a newsletter, mass media commercials, listing in directories, brochures, media publicity or direct mail. If a business sells bulls, offering services to 4-H groups and other educational events can gain additional exposure and goodwill. The u-pick operator could offer seminars on gardening in the winter to attract more potential customers to the operation and increase awareness in the local area.

A business calendar outlines what tools will be used and when. It can also identify who is responsible for an activity as well as containing monitoring activities undertaken.

"One marketing tactic commonly used for the market garden, seed and bull market is newspaper advertising," adds Engel.

The ***Guerilla Marketing Handbook*** gives these tips for successful newspaper advertising:

- make sure to use a strong headline – if the headline doesn't grab 'em , the rest of the ad won't either
- show a picture of the product or service in action
- include testimonials
- make an offer – with urgency – a 'call to action' asking readers to act in some manner
- put a border around the ad or add color
- don't change an ad because friends and family are sick and tired of looking at it. Those closest to a business will get tired of an ad a long time before prospective customers will. Repetition and reinforcement are the keys to successful newspaper advertising
- insist on getting the ad placed in the front section of the newspaper on the right-hand page above the fold
- don't be afraid of lengthy copy, it will draw attention better
- always include an address and phone number (email address) so people know how to contact the business and where it is located

Alberta Agriculture's rural development specialists – business are excellent sources of information on marketing farm businesses. For further information, contact the local Alberta Agriculture district office for the name and number of the closest rural development specialist – business. Alberta government numbers are toll free by dialing 310-0000 first.

Contact: Kerry Engel
(780) 349-4465

The Scoop on Wheat Rotations

Compared to new technology such as herbicide tolerant crops, crop rotation is an ancient practice. However, crop rotation still produces significant yield benefits and should not be underrated. The reasons for yield benefits of rotation still cannot be exactly pinpointed, because in studying rotation effects, long term experiments are needed to exclude the short term influences of weather, soil productivity, and management changes such as varieties or seeding system.

"One rotation benefit is the impact on weeds, diseases and insects," says Murray Hartman, crop specialist cereals and oilseeds with Alberta Agriculture, Food and Rural Development, Innisfail. "When a crop is grown continuously, pests adapted to that crop will increase. Crop rotation tends to disrupt the buildup of pests, especially immobile types. Rotation also affects water use. Oilseed crops like flax and canola use less water than cereals, and this can improve subsequent crop yields in dry areas. Water use is most efficient when crops with different root systems are rotated.

"In a diverse rotation of cereals, oilseeds, legumes and grasses, the various kinds of residue returned to the soil improves the fertility. This fertility increase can be attributed to differences in nutrient cycling, soil aggregation and complex interactions between plants, soils and microorganisms. Chemicals released by one crop can negatively or positively affect subsequent crops, and this interaction is termed allelopathy."

Although crop rotation is a widely accepted practice, the yield benefit is hard to quantify or predict. Crop managers could use more specific information on rotation benefits of various crop stubbles.

"Alberta Management Insights is a joint project between Alberta Agriculture and Agriculture Financial Services Corporation (AFSC) that analyzes agronomic information from client records," adds Susan Crump, AFSC, Lacombe. "This project is partially funded by the Farm Business Management Program."

The impact of stubble type on wheat yield was calculated over the years 1992-1998. Each wheat field must have been insured the previous year in order to determine stubble type. The data was then summarized over soil zones. The 7 year average is not weighted for different acreage amounts in individual years. Five million acres of data were analyzed. Areas or categories with insufficient data were excluded from the results in Table 1.

Table 1. Effect of stubble type on wheat yield in various soil zones

Soil Zone	Stubble type	1992-98 average yield % of wheat on wheat	Range between years
Black			
(south-central)	wheat	100	–
	barley	120	107-134
	canola	119	109-137
Black – Dark Gray			
(north-central)	wheat	100	–
	barley	127	110-154
	canola	120	103-132
Thin Black	wheat	100	–
	barley	106	101-115
	canola	105	91-116
Brown	wheat	100	–
	barley	insufficient data	–
	canola	101	79-126
	summerfallow	144	115-193
Dark Brown	wheat	100	–
	barley	107	96-121
	canola	105	94-114
	summerfallow	117	109-126
Dark Gray – Black			
(Peace region)	wheat	100	–
	barley	107	100-113
	canola	128	117-142

"Wheat yield on wheat stubble was lower than on other stubble types in all areas," says Hartman. "This is probably due to the higher soil moisture extraction of wheat and the increased disease pressure. In the Brown and Dark Brown soil zone, summerfallow had a large yield boost for wheat. In contrast, in wetter zones wheat yield on canola or barley had large yield benefits, probably due to reduced disease. Although wheat yield responded well to barley stubble in the wetter areas, volunteer barley could cause lower grades and prices for high quality wheat.

"Due to limited data, the response of wheat on pea stubble was not shown. In the wetter soil zones, the wheat yield on pea stubble was slightly higher than on canola. This indicates that wheat benefits from a broadleaf rotation break. The response of wheat on pea stubble from this data is less than in scientific experiments, perhaps due to other limiting management practices in commercial fields. Further data collection on the response of wheat to pea stubble is needed to clarify the magnitude of the benefit."

This data should give producers a conservative estimate of the rotation effects on wheat in their soil zone. Although the increased wheat yield on canola or pea stubble was less than found in scientific experiments, this may be due to limiting factors of weed management or fertility in some of these commercial fields. Also, the yearly yield variation is large,

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indicating a strong effect of weather on rotation response. Under good management and growing conditions, rotation yield benefits could approach the maximum shown in the ranges and therefore have positive effect on yield and income.

Contact: *Murray Hartman* *(403) 227-6565* *Susan Crump* *(403) 782-8239*

Agri-News Briefs

New website of interest to landowners and land agents

Land Agents Licensing now has a webpage at:
< **http://www.gov.ab.ca/env/land/land_agents/** >

This website will be of particular interest to both landowners and land agents. Some publications are included on the site and links to publications on other sites that are informative for landowners. There are also links to sites of particular interest to both landowners and land agents. Check this site periodically for updates and additions. For further information, contact Gerald Kress, Land Agents Licensing, (780) 427-3570, Edmonton.

Livestock Expansion & Developer's Guide posted on Internet

The Livestock Expansion and Developer's Guide provides information required to develop a sound business/project plan and development permit application. It can benefit those planning to expand or develop a livestock operation as well as aide in the decision making process of the governing bodies and industry. The guide was designed to assist stakeholders in the planning and development process, and provide information and ideas for the responsible growth of the livestock industry in Alberta. The guide is on-line at:
< **http://www.agric.gov.ab.ca/livestock/exp_dev/guide/index.html** >

Agri-News

April 5, 1999

Horse Health

Owners often know their horses better than anyone else. They know a horse's normal behaviour, and that makes it easier to pick-up on behaviour that could signal a health problem. Keeping horses healthy is partly taking preventative measures and partly being able to quickly recognize when there is a problem and when it is necessary to consult a veterinarian. A new publication from Alberta Agriculture, Food and Rural Development, ***Horse Health***, was designed as a reference guide that horse owners may find very beneficial.

"Horse owners will appreciate this factual, easy-to-understand book on some of the more common horse health concerns," says Les Burwash, manager of equine programs with Alberta Agriculture, Food and Rural Development. "It will help horse owners understand parasites, pests, infectious diseases, lameness and other common medical problems that can affect a horse's health. It is an excellent guide for helping prevent health problems before they get out of hand."

The publication presents information, colour photos, illustrations and diagrams on examining a horse, internal and external parasites, infectious diseases, common medical problems and common lameness problems.

"This publication can be helpful to owners in determining situations when veterinary assistance is needed. Often in those cases, the earlier a problem is identified, the better," says Burwash. "The book was reviewed by veterinarians, and their input has enabled Alberta Agriculture to produce a very worthwhile book for all horse owners. It is up-to-date on issues of horse vaccination, including how to administer a vaccination or shot, management methods to help control parasites and general horse health."

Horse Health is a reference book that horse owners will want to have in their library. It features over 80 colour photos as well as several illustrations and diagrams that make the information easy to understand.

Copies of Horse Health are available from Alberta Agriculture district offices, Alberta Agriculture, Food and Rural Development's publications office, 7000 - 113 Street, Edmonton, AB T6H 5T6. To order by phone, call the toll-free line 1-800-292-5697 or 427-0391 in Edmonton. Cost of the publication is $15 (plus GST). Please add $2 (plus GST) for shipping and handling.

Contact: *Les Burwash*
(403) 948-8532

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Alberta
AGRICULTURE, FOOD AND

China food market

A successful China Food Marketing Seminar was held in Calgary on March 4th. Seminar organizers were staff of marketing services division, Alberta Agriculture, Food and Rural Development, in partnership with the Alberta Food Processors Association (AFPA). China is a priority market for Alberta agricultural products and services and offers great challenges and potential to prospective exporters.

"At the seminar, two knowledgeable speakers gave their perspectives in entering two specific China food markets," says Penny Mah, strategic marketing project manager with Alberta Agriculture, Edmonton. "Anne Chong Hill, a Vancouver entrepreneur, relayed her experiences as a new businessperson in Beijing. Dr. Lu Chi, director of marketing research, Shanghai Foodstuffs Import & Export Co., gave a technical approach to entering the Shanghai food market. Both speakers were well prepared to answer the many questions that attendees asked."

Annie's Kiosks in Beijing – Ms. Anne Chong Hill, president of Global Commerce Development Inc., established a joint venture with the Beijing Bus and Trolley Company to market kiosk-style westernized foods, such as french fries and chicken burgers. Likening the China market to a 'child', she stated the market required important tools such as strong commitment, time and patience, money and a vigorous desire to succeed.

It took two years to negotiate the contract allowing her to place her first 8 x 14 ft kiosk on the streets of Beijing, one year for approvals and nine months to receive the appropriate permits. Hill emphasized that none of this would have happened without the personal relationships or 'guanxi' she developed with various strategic Chinese contacts.

This 'guanxi' has been extended into Canada, with Global Commerce Development Inc. forming strategic alliances with Maple Leaf Foods and acquisitions such as Premier Meats of Calgary. Currently, there are two kiosks operating in the Beijing area with plans to expand to over 1,000 units. The current menu consists of westernized foods and plans are being developed to include new items to appeal to consumers who prefer more local food flavours. Global Commerce Developments Inc. are currently accessing opportunities in the Korean and Japanese markets as well.

The Shanghai food market – Dr. Lu Chi stated that since China adopted the policy of economic reform and opened to the outside world, Shanghai has made fast and sustained growth in its economy and has reported a marked increase in its economic strength. In 1996, the city's GDP reached $52.3 billion (Canadian), 3.9 times over that of 1987. The average annual growth rate from 1979 to 1996 was 9.3 per cent.

Shanghai's food market is dominated by domestically-produced products. There has been significant growth in the value and size of the food market in Shanghai in recent years. This is due to Shanghai's recent market reforms that have brought about large scale structured changes in its retailing sector. People in Shanghai have been quick to respond and change in the way they shop. Food shopping is increasing in supermarkets that offer customer convenience, product selection and improved sanitation. Retail channels in Shanghai include supermarket/megamarts, China food stores, and wet or free markets. Both products from Chinese producers and multi-national firms that have established joint ventures with Chinese partners, are selling through these retail channels.

It is difficult to quantify the imported food market size in Shanghai. Generally speaking, the market is growing and the most commonly imported food products found in Shanghai are seafood, beverages, functional foods, alcoholic beverages, confectionery products and chocolate. It should also be noted that the Shanghai market imported management skills from westernized fast food chains such as McDonald's and KFC. Overall, the people's living standards have increased and are contributing to the growth of food markets in Shanghai.

For more information on China as an export market, contact Penny Mah at (780) 422-7839.

Contact: *Penny Mah*
(780) 422-7839

Check out the local 4-H Club when hiring summer staff

It's the time of year when employers start searching for summer help. This summer, they won't have to look far to find a 4-H member eager to take on the challenges of a new job.

"Alberta's 4-H program cultivates a unique skill set in its members through an array of activities throughout the club year," says Carol Sullivan, provincial 4-H media and marketing specialist with Alberta Agriculture, Food and Rural Development. "4-H'ers have well developed communication and leadership skills. They know how to manage meetings and perform duties associated with executive positions. In 4-H everyone learns the value of cooperation, tolerance and listening to the views of others. In addition to learning technical knowledge in their 4-H project area, members have strong record keeping, organizational and time management skills."

4-H'ers have developed the personal discipline and stress management abilities to participate in competitions from the local to national and international levels. As team players, 4-H'ers have the capability and confidence to coach others.

"A recent Measures of Success study looked at the impact of the 4-H program in Canada," says Sullivan. "It proved what industry leaders have known for years: 4-H gives youth the edge to compete in today's world. This study of 4-H Alumni showed that 4-H'ers are well educated and very involved in community organizations."

Cont'd on page 3

Whether responding to a devastating grass fire in southern Alberta, cleaning up Alberta's highways, supporting STARS, or pitching in to beautify a community, 4-H members are recognized for volunteer commitment to local initiatives.

"The job market is more demanding, and many people hire based on interpersonal abilities," adds Sullivan. "The 4-H program helps build necessary career skills and this makes 4-H'ers ideal employees."

For additional information regarding the 4-H program, contact Carol Sullivan at the 4-H Branch of Alberta Agriculture, Food and Rural Development, (780) 422-4H4H.

Contact: *Carol Sullivan*
(780) 422-4H4H (4444)

Biocontrol success at the Beverly Bridge

The biological control of weeds, and of leafy spurge in particular, have been the focus of a significant amount of research done by several Alberta agencies for a number of years. These groups include Alberta Agriculture, Food and Rural Development, the Alberta Research Council, Agriculture and Agri-Foods Canada and the University of Alberta.

"Part of the biocontrol work being done involves releases of the black dot leafy spurge beetle (*Aphthona nigriscutis*) made throughout the province of Alberta," says Jim Tansey, weed biological control technician, contracted with Alberta Agriculture, Food and Rural Development. "The releases of the black dot spurge beetle made near the Beverly Bridge, east Edmonton, have been some of the more successful biological control sites in the province."

Leafy spurge is an introduced, noxious weed that has invaded pastures, rangeland and non-cropland in a variety of habitats. It's very difficult and expensive to control with traditional methods. When not controlled, leafy spurge can greatly reduces the livestock carrying capacity of infested areas. These factors, as well as its perennial lifecycle, lack of redeeming qualities, taxonomic distinction from local plants and presence in densities and numbers far greater than in its native range, make leafy spurge an ideal candidate for biological control.

"This weed is not a problem in its native Eurasia due, at least in part, to organisms that feed upon the plant and hold its numbers in check," continues Tansey. "Some of these organisms have been collected, screened to ensure they represent no threat to native or economically important plant species, and released as biological control agents. These biocontrol agents include several species of leaf beetles in the genus *Aphthona* including the black dot leafy spurge beetle, *A. nigriscutis*. This small beetle that is less than 3mm in length, feeds upon the foliage of leafy spurge as an adult and upon the roots of the plant as a larva.

The larvae cause the bulk of the damage to the weed by consuming roots and root hairs, impairing the plant's water and nutrient uptake, and by opening the roots to secondary infection by soil microbes."

Biological control can be considered successful if the control agents released on a site become established and eventually have a noticeable effect on the target weed population. This is very much the case at the Beverly Bridge site. The beetles were released there in 1989 and are now having a dramatic effect on the leafy spurge. At least part of the success of the black dot leafy spurge beetles on this site can be attributed to favourable habitat conditions. The releases were made on a south-facing slope with sandy soil. *Aphthona nigriscutis* does best in soils with good drainage and, as this insect is from a slightly warmer climate than Edmonton, enjoys south-facing slopes where it can absorb as much of the sun's heat as possible.

"The beetle has established itself very well on this site," adds Tansey. "More than 100,000 beetles have been collected from the area for re-distribution to other leafy spurge infestations. These include almost 10,000 collected by three people with sweep nets in one day in 1998."

The effect the beetle populations is having on the leafy spurge is dramatic. With an average leafy spurge density of 40 per cent and average biomass of 173 grams per square metre (g/m2) in 1990, leafy spurge was reduced to an average of one per cent cover and an average biomass of two grams per square metre by 1993. This reduction in leafy spurge left a great deal of space for other plants. Grasses in particular have benefited. Grass biomass increased from 1.4 g/m2 in 1990 to about 43 g/m2 in 1993 and, when last measured in the summer of 1998, averaged about 55 g/m2.

"The Beverly Bridge site is a biological control success story," says Tansey. "However, leafy spurge has not, and will probably never be eradicated from this site. Classical biological control; introduction of a weed's natural enemies, in this case the black dot leafy spurge beetle, is a method of weed suppression not eradication. As long as these beetles are present in this area, leafy spurge will be fed upon and suppressed. There are still a large number of black dot leafy spurge beetles at this site, and leafy spurge suppression should continue for years."

For more information on biological control in general and how to obtain biological control agents for leafy spurge, bladder campion or scentless chamomile, contact Jim Tansey (780) 422-1107 or Dan Cole (780) 422-0919 at the agronomy unit of Alberta Agriculture or Dr. Alec McClay of the Alberta Research Council (780) 632-8207.

Contact: *Jim Tansey* *Dan Cole*
(780) 422-1107 *(780) 422-0919*

Alberta and Saskatchewan students, winners at Society for Range Management

Managing grasslands, whether it's pasture or open range, was the subject for more than 1440 people attending the 1999 joint meeting of the American Forage and Grassland Council (AFGC) and Society for Range Management (SRM) in Nebraska, U.S.A.

During the five day conference, February 21 to 25, over 200 high school and university students from Canada and the western US competed in various educational competitions involving plant identification, range management exams, public speaking and presentation of scientific research. The University of Alberta Range Science team, once again led by their coach, Barry Irving, placed fourth in the range management exam, and second in the plant identification contest which involved 20 American teams.

Individual winners were Darren Brujhell, Carla Martin and Brooke Bennett from the University of Alberta. Bill Houston, University of Saskatchewan, won the graduate student scientific research presentation. Barry Adams, range manager from the Lethbridge area, was awarded the Society for Range Management Outstanding Achievement Award for his work on promoting sound range management on Alberta rangelands along with more recent work on streams and rivers. Brenna Grant from Val Marie, Saskatchewan, placed fifth in the High School Youth Forum presentation competition.

The conference covered topics such as; new approaches to rating rangeland health, how to restore riparian areas and native grasslands, market hay, how to use rangelands for eco-tourism and manage livestock grazing and recreation in western North America. Managing plant species, the economics of cropping and grazing alternatives, urban turf grass uses, and grazing management needs into the new century were also highlighted during the five days.

All conference participants work directly with grasslands and rangelands and included producers, conservationists, educators, researchers, and students from across North America.

The meeting was fairly technical. Those who attended and are interested in improving grazing land were presented a considerable amount of information. Ranchers and students know that without the grass there can be no livestock, and the meeting was a chance to learn more about rangeland management and pick up information on how to improve grazing land and native grassland.

"When it comes to gauging the trends that are affecting North American rangelands or getting up to speed on the latest in range science, this meeting is a must," says Barry Adams. "The first steps are being taken to bring the annual meeting to Edmonton in 2006."

Contact:	Barry Adams (403) 382-4299	Duane McCartney Western Forage Beef Group Lacombe Research Centre (780) 782-8104

Weather and climate info on the Internet

Wondering whether to expect an early spring this year? Want to know how last month's precipitation and temperatures in an area compare with other regions in Alberta? A visit to the Land, Water and Climate link on Alberta Agriculture, Food and Rural Development's internet site, can answer these questions. The site contains a variety of weather and climate information of interest to the agricultural community.

"This internet site offers links to various long lead seasonal forecasts, providing predictions of what kind of conditions to expect this spring," says Peter Dzikowski, agricultural weather resource specialist with Alberta Agriculture, Edmonton. "The latest forecasts are for near or slightly cooler than normal temperatures and near normal precipitation for the coming spring. These predictions, although not as reliable as short-term forecasts, might help to refine successful management strategies."

Updated on a monthly basis, the web page contains summary climate information for all of Alberta. Monthly, seasonal and annual temperature and precipitation data, obtained from weather stations across Alberta, are summarized and displayed in charts, tables and maps. Temperature and precipitation measurements are compared with the 1961 to 1990 climate normals. At a glance, it is easy to see whether a region has been experiencing below, near or above normal temperature and precipitation.

"Broader climate issues, such as global climate change and El Nino, have been receiving greater attention in recent years," adds Dzikowski. "To help increase understanding of these topics, the site offers links to a number of excellent information sources. Here, the latest satellite images of sea surface temperatures in the equatorial Pacific, which represent El Nino/La Nina cycles can be observed. Information about climate change and greenhouse gases and how it may affect agriculture in Alberta is also available."

For more information about the climate information posted on the Alberta Agriculture internet site (http://www.agric.gov.ab.ca), contact Dzikowski at (780) 427-3594.

Contact: *Peter Dzikowski*
(780) 427-3594

Agri-News Briefs

Marketing club or production club success

On April 21, 1999, at a forum in Red Deer, the University of Alberta, in partnership with Alberta Agriculture, Food and Rural Development, will present the results of a study of marketing and production clubs in rural Alberta. The study was intended to discover what determines success in marketing and production clubs. The research was funded by the Farm Business Management Program. For more information on the forum, contact Harvey Brooks (780) 492-4596; Naomi Krogman (780) 492-4178; Carmen Andrew (403)742-7500; Cindy Bishop (780) 986-8985; Dean Dyck (403) 340-7007. For information or to register, contact Kathleen Ozmun at (780) 656-3613 or e-mail: < **kathleen.ozmun@agric.gov.ab.ca** >

5th annual composting conference

The Olds College Composting Technology Centre is hosting the 5th annual Composting Conference on April 7 to 9, 1999 at the Alumni Centre, Olds College. The conference is designed to assist industry develop, market and use commercial compost and organic wastes. The three-day conference offers one day of workshops and 30 speakers addressing the latest national and international research and industry developments in composting technology. Keynote speaker is Guy Boutilier, chair of the Standing Policy Committee, Sustainable Development and Environmental Protection. For more information, contact Kelly at the Composting Technology Centre (403) 556-4683 or 1-800-661-6537.

Food and nutrition trends for the next millennium

The Regional Nutrition and Food Service, Capital Health, is holding its annual conference on April 29 and 30, 1999 at the Bernard Snell Hall, University of Alberta Hospital, Edmonton The conference includes presentations on hospitality, food service systems, food safety and security, fortification, labelling, and new developments in clinical nutrition. Dietitians, food service personnel, allied health professionals in public health and government and anyone with an interest in nutrition may wish to attend this conference. For further information, contact Katherine Rufino (780) 407-7406, Edmonton.

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Alberta Agriculture, Food and Rural Development, stronger than ever before

Alberta Agriculture, Food and Rural Development has put into effect some organizational changes to better respond to the needs of Alberta's agricultural industries.

"The department has always enjoyed a very high level of client satisfaction and surveys of client groups show that Alberta Agriculture is meeting the expectations of industry," says Doug Radke, Deputy Minister of Alberta Agriculture, Food and Rural Development, Edmonton. "Alberta's markets, domestic and export, are not static. Emerging issues, in some cases, have become permanent elements of business that need to be addressed. Environmental sustainability and food safety being the highest priority issues. The new organizational structure allows the department to assign responsibility for these daily business concerns and clearly define them within the organization.

"In the February 1999 Speech from the Throne, commitments were made to address both environmental sustainability and food safety. We have taken this opportunity to organize our operations to closely work within the Alberta Government's mission statements and goals and to also continue to deliver the department's service effectively."

For over a year, the Department of Agriculture has worked to position itself to meet ongoing needs, especially regarding environmental sustainability and food safety. It increased its ability to ensure that research, information delivery and industry management practices respond effectively to the challenges and opportunities in the market place. Alberta Agriculture staff have also worked to improve links between the development, packing and delivery of information for Alberta's agriculture, agri-food and value-added industries.

"Our new structure will ensure that Alberta continues to manage resources effectively," says Radke. "We are committed to sound science and sound economics, that has never changed

"The department still looks much the same. The areas reporting directly to the Deputy Minister, research, administration, communications and internal audit remain constant. There are still three sectors, headed by three

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Assistant Deputy Ministers (ADM). The only changes being made are within these three sectors of the department. The three sectors are Marketing and Competitiveness, Industry Development and Sustainable Agriculture."

Structurally, the new sector responsibilities are:

Marketing and Competitiveness, Ray Bassett, ADM

- Policy Secretariate: *domestic policy; international trade; corporate projects; corporate services; emerging issues*
- Markets and Economics: *market information; competitive intelligence; economic and market research; production economics and statistics*
- Rural Development: *agriculture business management; Ag education and community services; 4-H*
- Safety Net Systems: *program development and evaluation; systems and administration; services; feeder associations*

Industry Development, Barry Mehr, ADM

- Animal Industry: *research support; aquaculture; beef, dairy and sheep; forages; pork, poultry and horse*
- Plant Industry: *cereals and oilseeds; horticulture/apiculture; new/special crops; cropping systems; Crop Diversification Centres - North and South*
- Processing: *investment development; agrifood development; food processing development; Alberta Value-Added Engineering Centre; Food Lab, Brooks;*
- Southern, Central, Northern and Peace Regions

Sustainable Agriculture, Les Lyster, ADM

- Public Lands
- Resource Management and Irrigation: *program coordination; irrigation; water quality; soil quality; air quality and climate change*
- Food Safety: *inspection and trace back systems; laboratories; food quality*
- Technical Services: *intensive livestock operation (ILO) sitings and approvals; animal care; engineering; ILO compliance; livestock expansion and development (LEAD Team); special projects*

"We are confident that this new reorganization and refocus with the clearer responsibilities outlined, will result in even more effective uses of our resources and better service to our clientele," adds Radke.

Contact: *Doug Radke*
(780) 427-2145

Biotechnology, what is it and where is it at now?

Biotechnology is the manipulation of biological material through the use of appropriate technology. This process started hundreds of years ago when people started to make bread, cheese, beer, wine, and selected better preforming crops and animals to improve food production.

"Many emotions are evoked when the term biotechnology is mentioned," says Richard Guitard, cereal, oilseed and forage specialist with Alberta Agriculture, Food and Rural Development, Valleyview. "Many judgements of the benefit or risk of this not so new technology are based on emotional response instead of an objective assessment of the facts garnered from many sources.

"Some common foods and industrial applications depend upon the results from the use of microorganisms. Examples being yeast in bread, beer and wine production; bacteria used to make yogurt and cheese; and, the use of enzymes to produce certain industrial chemicals. Many disease fighting drugs are derived from biotechnology. All of these and many more biotechnology processes have been used for hundreds of years."

Molecular biology is the basis of modern biotechnology. Molecular biology is defined as the identification of the basic structure of genes, the genetic sequence, what it does and how it acts and reacts. Transgenic refers to an organism that contains genetic material from another species. A novel trait refers to any organism with a trait or characteristic different from the parent(s) not necessarily derived from another species. A new variety of wheat with extra strong gluten derived through traditional breeding techniques is one example.

"Biotechnology is an old science that has gained exposure due to the ability of science to create transgenic organisms at an accelerated rate," says Guitard. "Transgenic organisms are not new. Nature creates transgenic organisms, one specific example of this is wheat. Wheat is a transgenic crop created around 10-14,000 years ago after the last ice age. The two species involved were *Triticum dicoccum* and *Aegilops squarrosa*. Nature put them together and the result is that most of people eat bread every day."

Other examples of transgenic organisms are cold or flu viruses. These viruses enter a body's cells. Once infected, the viruses take over the cell's DNA by inserting its own DNA or RNA into the nucleus to get the cells to make more viruses. These natural processes occur every day.

"Where is biotechnology now? During the last few years, a number of genetically altered crops have been grown on an increasing number of acres in Canada," adds Guitard. "The most prevalent are novel trait canolas. There are currently four registered systems: Roundup tolerant, Liberty tolerant, Pursuit/Odyssey tolerant and Bromoxynil tolerant. Roundup, Liberty and Bromoxynil tolerant are transgenic while the Pursuit tolerant is derived from conventional breeding techniques. It is important to note that all the crops grown in North America are tolerant to herbicides and some pesticides The use of transgenics will dramatically reduces the use of agricultural chemicals through the introduction of insect and disease prevention genes into crops."

Work is being done on many crops: Super High Erucic acid canola developed for industrial lubricants; hybrid canola; canola meal improvements for animal feed; waxy wheat for biofuel; modified gluten protein in wheat for meat replacement; increased disease resistance in barley; reduced lignin and higher chlorophyll production in alfalfa for increased hay production and better digestibility; and, potatoes with resistance to disease and insects. These are a small sample of what has been developed and are available now. Many more crops are being worked on with a wide range of traits. Contact the local Alberta Agriculture office for more information or sources of information on biotechnology.

Contact. *Richard Guitard*
(780) 524-3301

Alberta 4-H to attend International Trade Awareness Program

Ellen Belanger, a seven year 4-H member from the Villeneuve Young Riders 4-H club is the winner of the new International 4-H Trade Awareness Competition. She has been named Alberta's delegate, joining 10 senior 4-H members from across Canada to represent their country at the International Food Marketing Institute Show in Chicago, Illinois.

"Belanger was selected from the Alberta Food Processors Association (AFPA) Alberta Made Ambassador Program. These 4-H'ers participated in an internship program that promoted Alberta food and beverage products," says Carol Sullivan, provincial 4-H media and marketing specialist with Alberta Agriculture, Food and Rural Development, Edmonton. "The Alberta Made Ambassadors are part of a network promoting local industry, seeking growing markets for Alberta farm products, spurring community economic activity and creating jobs across Alberta."

The Alberta Made Ambassadors received training that included getting an overview of Alberta's food industry as well as learning about providing quality service, developing a marketing plan, and dealing with the media. Each Alberta Made Ambassador was teamed with a local coach who works in Alberta's food industry.

Entrants had to meet several criteria including demonstrating the extent of their agriculture and agri-food knowledge by authoring an essay on some aspect of the theme ***From Canada's Farm Gates to Foreign Plates***

The 10 delegates, accompanied by Canadian 4-H Council and Agriculture & Agri-Food Canada representatives, will attend the 1999 Supermarket Industry Convention & Educational Exposition, held May 1 to 4, 1999. The largest annual exposition for the grocery trade in the US, this show is a world-class event that typically features 1,500 exhibitors and attracts 35,000 retailers, distributors, and other food industry professionals. The show incorporates many workshops and seminars highlighting emerging trends in food distribution and marketing.

Delegates will tour the show, focussing on the Canadian Pavilion, attend several sessions addressing industry trends and Canada's international trade policies, and will visit the Canadian consulate as well as other sites of interest. Delegates will attend a luncheon with Lyle VanClief, Minister of Agriculture and Agri-Food Canada, where they will each give an impromptu speech on the subject of international trade in the agri-food sector.

Based on their showing in Chicago, one member of the group will be selected to visit ANUGA – one of the world's largest food and beverage expositions in Cologne, Germany in October 1999. Upon returning to Canada, this individual will be invited to address annual meetings of several agriculture organizations and 4-H groups at various levels, speaking about the experience.

"This project is quite simply an excellent opportunity for Canadian young people to learn more about Canada's food products and how they are marketed internationally," says VanClief. "As well as enhancing the awareness of agri-food trade issues among young people already interested in the agriculture sector, I am hopeful the project will encourage an interest among participants in Canada's agriculture and agri-food sector, which is the best in the world."

The International Trade Awareness program is sponsored by Agriculture & Agri-Food Canada and is designed to enhance awareness of Canada's international trade in agri-food products. AFPA is sponsoring Belanger's airfare to Chicago.

Contact: *Carol Sullivan*
(780) 422 4II4II

Consultations on legislation for intensive livestock operations extended

A commitment to further consultations on the proposed legislation governing intensive livestock operations has been made by Ed Stelmach, Minister of Agriculture, Food and Rural Development.

"This is a complex issue, and I have heard from many municipalities and industry leaders that more work is required to reach a consensus," says Stelmach. "As well, I know that it's important for people to see the full package of proposed draft legislation, regulations and standards document together. Therefore, I have postponed the introduction of Legislation planned for this session and have accepted the recommendation of the Livestock Regulations Stakeholder Advisory Group (LRSAG) that there be another round of consultations."

"Overall, people seem to think that we are on the right track, but need to get more consensus on provisions such as threshold numbers, municipal involvement and enforcement," says Aaron Falkenberg, co-chair of the Advisory Group making recommendations to the Minister on the proposed regulatory framework for livestock operations. "That's why we made the recommendation to the Minister that we continue to work with those involved in the process. We're pleased that Mr. Stelmach has accepted our recommendation."

The LRSAG will be meeting to continue discussing the results of the latest consultations and encourages interested parties to work with the committee and its members. The Group wants to make sure that when it next consults with producers, municipalities and the public that the complete legislative package, including Acts, regulations and standards, is available for review.

"It's always been the Advisory Group's goal to reach consensus on the regulatory framework and that process takes time," says Falkenberg. "We have a wide range of opinions around the table, and we've got to take everyone's point of view into consideration to develop a regulatory system that has broad public and producer support. We're confident that, at the end of the day, we'll have a workable regulatory system."

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Two new beetles in Alberta's biocontrol arsenal

The black-dot leafy spurge beetle (*Aphthona nigriscutis*) has been very successful at suppressing leafy spurge in dry areas with sandy soils and low levels of organic matter.

"Unfortunately, the larvae of black-dot leafy spurge beetles that feed underground on the roots of the weed and cannot cope with high moisture or organic matter levels, or soils with high clay contents," says Jim Tansey, weed biological control technician, with Alberta Agriculture, Food and Rural Development's agronomy unit, Edmonton. "Leafy spurge is not limited to dry, sandy areas, therefore, biological control agents that do well in other soil and habitat types were required. Two possible candidates for the control of leafy spurge in areas with slightly higher levels of moisture and organic matter are the brown-legged leafy spurge beetle (*Aphthona lacertosa*) and the black leafy spurge beetle (*Aphthona czwalinae*). Both species are close relatives of the black-dot leafy spurge beetle and have proven to be effective biological control agents on sites with relatively moist, loamy soils in the northern U.S."

Large numbers of these insects were needed in order to test their effectiveness in Alberta. In July of 1997, Monty Thompson of Agriculture and Agri-Foods Canada (Lethbridge Research Centre), Jimmy Shot-Both-Sides and Audrey Scout of the Blood Indian Reserve and Tansey went to Valley City, North Dakota, to collect large numbers of black and brown-legged leafy spurge beetles. In North Dakota, they were met by representatives from the United States Department of Agriculture, Animal and Plant Health Inspection Service (USDA-APHIS), North Dakota State University, Saskatchewan Agriculture and Manitoba Agriculture. Together they collected over a million beetles. These beetles, a mixture of both species, but primarily brown-legged leafy spurge beetles ,were divided among the visiting parties and brought back to Alberta, Saskatchewan and Manitoba.

"About 180,000 beetles were brought to Alberta for redistribution on experimental sites," says Tansey. "Of these, about 30,000 were released on the Blood Reserve alone. The remaining beetles were released on 95 sites throughout southern and central Alberta. Most of the releases were of 1,000 to 2,000 beetles, but as many as 10,000 beetles were released on some sites. Although most of the releases were made on sites with relatively moist, loamy soils, some beetles were released on other soil and habitat types in order to assess their responses to these habitat types and develop a better understanding of the habitat requirements of these beetles.

Adult beetles do not survive the winter, so a good measure of beetle establishment on a particular site is the presence of adult beetles on that site in subsequent years. The leafy spurge beetle release sites of 1997 were monitored in the summer of 1998 to determine the level of beetle establishment on each of the sites and any effects the beetles had on the leafy spurge

"Of the 95 releases made throughout southern and central Alberta that could be monitored, about 70 per cent had established beetle populations the following year," adds Tansey. "Some of the release sites already had large populations of beetles and some showed marked suppression of the leafy spurge at the release site. Beetles released on the Blood Reserve fared even better with successful establishment at about 77 per cent of the sites."

These release sites will continue to be monitored for both beetle establishment and the effects of the beetles on the leafy spurge for the next several years. Beetle populations on established sites have the potential to increase quite dramatically over several years and have a profound effect on the leafy spurge in the area. Once a population grows to a sufficiently high level, it can serve as a reservoir of biological control agents. The beetles can be harvested from these sites and then relocated to other suitable leafy spurge infestations. This provides a constant supply of the insects and eliminates the need to import them.

"Concerns have been expressed about what happens with the insects should they reduce the weed stand sufficiently to deplete their food supply," continues Tansey. "If the insects were generalists, feeding on a variety of plants, this would indeed be a serious concern.

However, leafy spurge beetles, like most biological control agents, are specialist feeders on a particular weed. They will not feed upon any other plant species. In fact, as the weed population falls, so does the beetle population."

In keeping with this life-cycle, should the weed population rise again, the beetle population would rise to take advantage of the increased food supply and knocks the weed numbers back down. This cycle continues until the weed and beetle populations both hover around a new, much lower equilibrium point and the weed is reduced from a serious problem to an incidental member of the plant community.

"Successful establishment of the black and the brown-legged leafy spurge beetles in Alberta is encouraging news," says Tansey. 'The addition of another leafy spurge biological control agent to our 'arsenal' will help provide more consistent control of this problem weed in a wider range of habitats."

For more information on biological control in general and how you can obtain biological control agents for leafy spurge bladder campion or scentless chamomile, please contact Jim Tansey, (780) 422-1107 or Dan Cole, (780) 422-0919 of the Agronomy Unit of Alberta Agriculture, Food and Rural Development or Dr. Alec McClay of the Alberta Research Council (780) 632-8207

Contact	*Jim Tansey*	*Dan Cole*
	(780) 422-1107	*(780) 422-0919*

Alberta Agri-Food Key Stats

Updated:
April 6, 1999

Note: Data are Subject to Revision	Current Reference Period	**Alberta**			**Canada**		
		Current	Same Period Last Year	% Change	Current	Same Period Last Year	% Change
Number of Farms (1996 Census of Agriculture)	*1996*	**59,007**			**276,548**		
Total Farm Cash Receipts ($ Million)	*1998*	**6,288.0**	6,370.0	-1.3	**28,964.3**	29,586.0	-2.1
Total Crops	*1998*	**2,375.7**	2,567.5	-7.5	**13,306.8**	13,933.4	-4.5
Canola	*1998*	**859.2**	713.3	20.5	**2,773.4**	2,038.0	36.1
Wheat	*1998*	**842.0**	1,045.8	-19.5	**3,282.6**	4,193.6	-21.7
Barley	*1998*	**214.5**	328.7	-34.7	**596.4**	856.9	-30.4
Total Livestock and Livestock Products	*1998*	**3,674.4**	3,606.0	1.9	**14,256.3**	14,580.6	-2.2
Cattle and Calves	*1998*	**2,768.2**	2,578.1	7.4	**5,494.4**	5,222.5	5.2
Hogs	*1998*	**315.5**	440.7	-28.4	**2,249.3**	2,984.6	-24.6
Program Payments to Farmers	*1998*	**238.0**	196.5	21.1	**1,401.2**	1,071.9	30.7
Farm Operating Expenses ($ Million) (1)	*1998*	**4,859.0**	4,825.0	0.7	**22,714.0**	22,810.0	-0.4
Net Cash Income ($ Million)	*1998*	**1,589.0**	1,545.0	2.8	**6,511.0**	6,776.0	-3.9
Realized Net Farm Income ($ Million)	*1998*	**582.0**	592.0	-1.7	**2,574.0**	3,054.0	-15.7
Total Net Farm Income ($ Million)	*1998*	**523.0**	421.0	24.2	**2,496.0**	2,020.0	23.6
Farm Debt as at December 31 ($ Million)	*1997*	**7,252.0**	6,667.2	8.8	**30,107.7**	27,036.0	11.4
GDP - Agri-Food Industries ($ Million) (2)	*1997*	**4,046.2**	4,038.4	0.2	**29,485.0**	29,152.0	1.1
Agriculture	*1997*	**2,675.4**	2,720.0	-1.6	**12,185.0**	12,277.0	-0.7
Food and Beverage Manufacturing	*1997*	**1,370.8**	1,318.4	4.0	**17,300.0**	16,875.0	2.5
Food and Beverage Industries ($ Million)							
Value of Manufacturing Shipments	*1998*	**7,475.1**	7,250.5	3.1	**59,120.3**	57,458.9	2.9
Meat and Meat Products (excluding poultry)	*1998*	**3,635.0**	3,515.2	3.4	**11,238.3**	11,205.5	0.3
Employed Labour Force - Agri-Food Industries	*1998*	**102,000**	103,100	-1.1	**689,600**	667,200	3.4
Agriculture	*1998*	**82,200**	83,100	-1.1	**418,700**	403,400	3.8
Food and Beverage Manufacturing	*1998*	**19,800**	20,000	-1.0	**270,900**	263,800	2.7
Total Major Crop Production ('000 tonnes)	*1998*	**15,750.5**	16,296.2	-3.3	**50,141.5**	48,900.8	2.5
Wheat	*1998*	**6,752.3**	6,839.3	-1.3	**24,393.2**	24,280.3	0.5
Barley	*1998*	**5,660.8**	6,270.5	-9.7	**12,698.7**	13,527.3	-6.1
Canola	*1998*	**2,449.4**	2,109.2	16.1	**7,587.8**	6,393.1	18.7
Oats	*1998*	**771.1**	979.3	-21.3	**3,957.5**	3,484.7	13.6
Rye	*1998*	**77.5**	66.1	17.2	**398.1**	320.0	24.4
Flaxseed	*1998*	**39.4**	31.8	23.9	**1,106.2**	895.4	23.5
Number of Cattle and Calves on Farms (head)	*Jan. 1/99*	**4,880,000**	4,959,000	-1.6	**12,810,000**	13,072,000	-2.0
Number of Hogs on Farms (head)	*Jan. 1/99*	**1,854,000**	1,843,000	0.6	**12,474,000**	12,003,000	3.9
Price - Slaughter Steers (Alberta Direct Packer Sales)	Feb/99	**$88.36/cwt**	$82.56/cwt	$5.80	**Cattle prices on live weight basis.**		
Price - Central Alberta Steer Calves (500-600 lbs)	Feb/99	**$125.84/cwt**	$128.13/cwt	-$2.29	**cwt = 100 pounds**		
Price - Alberta Average Slaughter Hogs (3)	Feb/99	**$1.04/kg**	$1.25/kg	-$0.21	**kg = kilogram**		
Number of Livestock Slaughtered							
Cattle and Calves (head)	*1998*	**2,108,609**	1,913,939	10.2	**3,602,247**	3,500,983	2.9
Hogs (head)	*1998*	**1,596,267**	2,222,689	-28.2	**16,669,728**	15,177,136	9.8
International Agri-Food Exports ($ Million)	*1998*	**4,601.8**	5,338.5	-13.8	**21,090.0**	22,647.7	-6.9
Beef	*1998*	**940.4**	693.4	35.6	**1,278.7**	1,021.0	25.2
Wheat	*1998*	**881.8**	1,603.9	-45.0	**2,992.6**	5,366.4	-44.2
Live Cattle	*1998*	**694.8**	661.0	5.1	**1,413.3**	1,334.2	5.9
Canola Seed	*1998*	**420.0**	413.8	1.5	**1,286.7**	1,262.2	1.9
Pork	*1998*	**85.9**	178.0	-51.7	**1,278.7**	1,021.0	25.2
Exports to United States Only	*1998*	**2,655.1**	2,419.4	9.7	**12,970.6**	11,568.3	12.1
Exports to Asia Only	*1998*	**1,076.0**	1,572.9	-31.6	**3,481.6**	5,035.9	-30.9

(1) Expenses After Rebates. (2) Gross Domestic Product at Factor Cost in Constant (1992) Dollars. (3) Index 100 Dressed Hog Price.

Source: Alberta Agriculture, Food and Rural Development; Statistics Canada; and Canfax

For further information, contact Production Economics and Statistics Branch at: Tel: (780) 427-4011 or Fax: (780) 427-5220

Alberta
AGRICULTURE, FOOD AND
RURAL DEVELOPMENT
Production Economics and
Statistics Branch

"Alberta Agri-Food Key Stats..........a summary of activity indicators for Alberta's primary agriculture and secondary food and beverage processing industries."

Agri-News Briefs

Rural Alberta Showcase '99 – "A celebration of rural living"

Albertans are celebrating the strength of rural Alberta at a unique showcase on April 19 and 20, 1999 in Bashaw Entrepreneurs, community leaders, business leaders, economic and resource organisations will network, learn and showcase their products, services and achievements over the two days. ***Rural Alberta Showcase '99*** is a grassroots initiative celebrating the capacity rural communities have to thrive. Exhibits vary from potting soil and sandblast art to natural food products and herbs, all produced in small rural Alberta communities. Presentations include: St. Paul's UFO Landing Pad and Hot Line, the famous Rosebud Theatre group, the children's author of Lolly and the Hat, the Snow Goose Festival in Tofield, Compak Technologies' innovative straw plant in Forestburg, International Compost of Strathmore - a new rural waste management company, Morris Meadows Country Holidays, Bashaw's international rural youth programming and more. Alberta communities with an innovative event or an exciting story exemplifying the spirit of rural Alberta, should contact the organizing committee. To book a display, exhibit or demonstration or, for further information on the planned events, contact the Bashaw Agricultural Society (780) 372-3648.

CCIA on the Internet

The Canadian Cattle Identification Agency (CCIA) is now making the latest information on the Canadian cattle industry's national identification program available on-line. The website address is < **www.cattle.ca/ccia** >. The site features background information on cattle identification in Canada and a frequently asked questions section. The site is frequently updated with the latest news, technology trial results and information about identification programs in other countries. For more information, contact CCIA directly by e-mail at <**ccia@cattle.ca** .

Food and nutrition trends for the next millennium

The Regional Nutrition and Food Service, Capital Health, is holding its 3rd annual conference on April 29 and 30, 1999 at Bernard Snell Hall, University of Alberta Hospital, Edmonton The topic is **Food and Nutrition Trends for the Next Millennium**. Eight experts will speak about nutrition and food trends that professionals will deal with in the coming years. An exhibitors showcase will feature upcoming food and nutritional products, food service systems, equipment, software and educational materials. Early registration fee is $75 before April 15, $100 after April 15 for the two days; $60 for Capital Health employees; $30 for students; and half-day session rates are $40. For more information on the conference, contact Katherine Rufino (780) 407-7406, e-mail < **krufino@cha.ab.ca** >.

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Agri-News

April 19, 1999

Pruning season for Elm trees in Alberta is over

This last winter Albertans might have noticed certified pruners in elm trees removing dead branches or removing dead and severely weakened elm trees. To get ahead of the threat of Dutch Elm Disease (DED), a highly destructive fungal disease, elm pruning has been going on throughout the province. Elm bark beetles, vectors of the DED fungus, breed under dead and dying elm wood, making elm sanitation essential to a Dutch Elm Disease Prevention Program.

"Pruning of elm trees in Alberta must only be done between October 1 and March 31 of the following year," says Janet Feddes-Calpas, DED technician with Alberta Agriculture, Food and Rural Development, Brooks. "Several municipalities already have an elm pruning bylaw in place that result in a fine for people who prune an elm after March 31. It is also illegal to transport or store elm firewood. All pruned elm wood must be burned or buried to prevent the possible spread of DED."

The concern and the annual pruning ban, in effect between April 1 and September 30, is because the smaller European elm bark beetle (SEEBB) and the native elm bark beetle (NEBB) are most active during this period. These beetles are attracted to the scent of the sap given off by the elm wood and the open wound after it has been pruned. If the beetles have emerged out of infected DED wood, they may be carrying the fungal spores on their bodies, spreading the disease while they feed.

"Alberta Agriculture's Dutch Elm Disease Initiative (DEDI) along with larger municipalities has monitored for the SEEBB, and the NEBB, since 1978," says Feddes-Calpas. "Since then, the beetle monitoring program has been an important component of DED prevention programs and is done to determine if either vector is in the province. In 1998, 474 locations in the province were monitored for the beetles, including municipalities, nurseries, provincial parks and all ports-of-entry. Monitoring season for the vectors is between April 1-Sept 30."

SEEBB have been captured in record numbers for the fifth year in Calgary, fourth year in Edmonton and for the first time in Medicine Hat. One SEEBB was captured in St. Albert. SEEBB have been captured in Vauxhall in 1996 and in High River in 1997. To date there has been no confirmed reports of DED in the province.

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Alberta

"Since its introduction from Europe in 1930, DED has destroyed millions of American elm trees across North America," explains Feddes-Calpas. "The final number of verified cases of DED within the south eastern Saskatchewan communities in 1998 more than doubled over the previous year. Over 950 diseased elms were identified in municipalities and buffers with an additional hundreds of thousands in native elm stands along the rivers."

Alberta needs to stay diligent in the fight against DED. Alberta is one of the few places in the world with large populations of American elm trees, valued at more than $500 million, that are free from the scourge of this fatal disease. Alberta's DED-free status is in large part due to the hard work done by the Society to Prevent Dutch Elm Disease (STOPDED) and DEDI. These last two years, STOPDED employees have travelled to every municipality in the province taking an elm inventory and increasing public awareness.

"With the progress DEDI and STOPDED have made in the province-wide DED Prevention Program, Alberta now has a solid foundation on which to work towards dealing with DED, if and when it is found, and to keep tree losses to a minimum," adds Feddes-Calpas. "Alberta can not afford to lose its elm trees."

For more information on DED or the program, contact the Dutch Elm Disease Hotline at (403) 362-1337. Government numbers are toll free by dialling 310-0000 first. Information is also available on the Alberta Agriculture Internet site at: **http;//www.agric.gov.ab.ca/pests/diseases/ded/index.html**

Contact: *Janet Feddes-Calpas*
(403) 362-1337

Fusarium, a threat to Alberta's cereal industry?

Wake up and smell the malt! That was one of the messages that came through loud and clear at the March 25 Fusarium head blight seminar in Leduc. The seminar, hosted by the Alberta Grain Commission, was held to increase awareness and understanding of this disease as it relates to Alberta grain production and markets. All sectors of Alberta's cereal industry were invited to attend and learn more about the disease and it's possible impact on Alberta.

"Fusarium head blight is a fungus disease of barley and wheat that has spread considerably in the last 10 years," says Dr. Ieuan Evans, plant disease specialist with Alberta Agriculture, Food and Rural Development, Edmonton. "While this disease was previously virtually unheard of in Alberta, it has shown up to a limited degree in the past two years. While it isn't having a major impact on Alberta's grain industry at present, it could have huge consequences in the near future."

Alan Slater, senior official responsible for malt barley for Anheuser Busch Corporation, one of the seminar speakers, stated that Manitoba loses over $40 million annually on it's 1.3 million barley acres and in the neighbourhood of $50 million on its wheat production. Fusarium head blight has spread to the point that it is hard to find suitable malt barley in Manitoba and in the Red River Valley Dakota States.

Slater commented that suitable malt barley must be free from deoxynivalenol, a toxin known commonly as DON. A one per cent head infection of malt barley by the Fusarium head blight fungus (*Fusarium graminearum*) can result in a one part per million level of DON (1 ppm DON) in the malt grain. During the malting process, this 1 ppm DON can multiply further in the germinating grain if the fungus is actively growing. Two ppm or more of DON in beer causes the beer to gush champagne-like, making it unacceptable for brewing.

Alberta, which has just under half of the Canadian barley acreage and over 25 per cent of North America's barley acres, has become very important to many malting companies in providing every increasing amounts of DON free malt barley.

"This is not just a disease that affects brewing grains," adds Evans. "Any grain, barley, wheat, rye, oats, triticale or corn, with more than one ppm DON is unsuitable as hog feed or for the food industry. Poultry, pets, horses and other monogastrics, humans included, are significantly affected by levels of one ppm DON or more. Cattle, with their complex digestive systems can eat grain with up to 12 ppm DON."

Fusarium head blight is spreading westward. It is now present in every cereal grain field in Manitoba to varying degrees, from trace levels to 20 per cent or more head infections. Significant disease levels were also present in eastern Saskatchewan samples in 1997 and 1998. To date, in Alberta just trace levels of this fungus disease have been found, but a widely scattered locations from the irrigated south to the Peace region.

"As producers heard at the seminar, there are no magic solutions for this fungus disease problem, despite the many millions of dollars that have been spent in the U.S. on control procedures," adds Evans. "The fungus spreads from field to field in infested areas and long distance via infected seed transfer, even certified seed. Infected wheat and barley grain has contributed to two-way trade between Alberta and Manitoba, with some DON infested grain moving to Alberta for cattle feed and low or DON free barley moving out of the western prairies as hog feed to Manitoba."

Fungicides can control the seed-borne phase of the fungus and using only disease free planting seed is important. Plant disease researchers are working on fungal resistance and agrochemical companies are looking for effective fungicides.

"There is still some time to act," says Evans. "Alberta could well become the quality malt, feed and food grain producer of North America, and the province is looking at adopting programs to minimize, prevent and control this disease problem."

Cont'd on page 3

Fusarium head blight, if it becomes established in Alberta and Saskatchewan as it has in eastern Canada, Manitoba and the U.S. midwest, could have serious consequences in the malting and hog feeding industries. It is a direct threat to Alberta's cereal grain industry.

Contact: *Dr. Ieuan Evans*
(780) 422-0719

Province's best 4-H speaker

Lanny Anderson's speech on this year's topic *Technology: Friend or Foe?* earned him the title as Alberta's best 4-H public speaker in 1999.

Anderson, a member of the Czar-Metiskow 4-H Beef Club, was one of 14 top 4-H'ers who qualified for the recent competition in Wetaskiwin. "All 14 finalists had to speak at a minimum of three levels of competition to reach the provincial finals," says Kathy Hougham, provincial 4-H communication development specialist with Alberta Agriculture, Food and Rural Development, Edmonton. "Each finalist had less than two weeks to research and prepare a four to six minute speech on the selected topic. Anderson's speech *The World's Shame*, dealing with nuclear weapons, plus his impromptu speech won him first place."

In second place was Adelle Peterson from the Trochu Valley Riders 4-H Club. Brandy Builder from the Irricana Beef and Multi 4-H Club received third place honours.

The 1999 Provincial 4-H Public Speaking Finals were sponsored by Agrium. "The speakers all exhibited a high level of skill, poise and self-esteem," says Bob McKenzie, credit manager with Agrium. "The communication skills the speakers learn in 4-H will serve them well in their careers and personal lives."

Anderson will travel to Toronto in November to compete in the Young Speakers for Agriculture Competition. The agricultural radio program, Agritalk, is sponsoring Anderson's travel to Toronto.

Contact: *Kathy Hougham*
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Beef cow research project update

Winter feeding costs for beef cows in central and northern Alberta account for an average of 45 per cent of the total cost of production. Two years ago, Alberta Agriculture, Food and Rural Development beef specialists in the northwest region focused some research resources on a project to help understand, evaluate and contribute valuable information towards lowering the cost of production in the cow-calf industry.

"The Ellerslie Beef Cow Research project began as a five year project to learn more about winter feeding strategies," says Brian Koberstein, project coordinator and intensive livestock siting engineer with Alberta Agriculture, Food and Rural Development, Barrhead. "The project began in 1997/98 and some interesting trends in terms of cow size have been observed. From first year data, it appeared that moderate sized cows have lower maintenance costs per 1000 pounds of cow than do small or large cows. It was also found that thin cows cost 20 to 30 per cent more than fat cows to feed to an ideal condition at calving. As for body condition, the ideal body condition score is 3.0 and a good goal for a herd."

Second year data has also been very interesting. The goal of the project has not changed, but researchers are also trying to put more condition on thin cows and take more off fat cows.

"Last year, neither the thin or fat cows were able to meet the target condition score of 3.0," says Koberstein. "To date, the thin cows have cost $0.45 per 1000 pounds of cow a day more than the fat cows."

During year two of the project, in addition to the cows, their 1998 steer calves were brought in. These will be individually fed to slaughter weight. Research on the steer calves will focus on feed efficiency, performance and carcass evaluations. Keeping closer check on the growth of these steers will also allow researchers the opportunity to relate productivity of the cows, 200 day weaning weight to wintering information.

The research team is now working on the strategy for year three of this five-year project. Producers who would like to get involved in the project or would like additional information on the Ellerslie Beef Cow Research Project can contact Brian Koberstein at (780) 674-8249 or contact the Alberta Agriculture office in Wetaskiwin at (780) 361-1240.

Contact: *Brian Koberstein*
(780) 674-8249

Iron problems in water wells

Iron problems in rural well water can range from minor nuisances to severe problems, depending on how much mineral iron or iron bacteria are present. The solution can also range from a $10 to $20 shock chlorination treatment to a $1,000 to $4,000 water treatment system. It's important to thoroughly assess the problem before taking action.

"The first step is to determine how much of the iron problem is caused by an accumulation of iron bacteria in the well and how much is caused by either dissolved or particulate iron in the water," says Bob Buchanan, agricultural water specialist with Alberta Agriculture, Food and Rural Development, Leduc. "A few simple observations should be done. If iron bacteria are present, there will be a buildup of rusty-coloured slime in the toilet water tank. If mineral iron is the majority of the

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problem, a hard rusty coloured deposit will accumulate on everything in the toilet water tank."

Typical symptoms of iron bacteria problems are gradual increases in taste, odour and staining problems over time. Iron bacteria can also build up on the pump screen or well casing and also inside water pipelines and gradually begin to plug these.

"For wells with iron bacterial problems, a thorough shock chlorination treatment is in order," says Buchanan. "The treatment involves putting a strong solution of chlorine bleach plus water down the well. This is very easy to do and most landowners do it themselves. This solution is left in the well and water system overnight or for a couple of days and then pumped from the well. Generally, shock chlorination treatments of a well once or twice per year will make a dramatic improvement in well water quality."

Detailed information on shock chlorination is available at any Alberta Agriculture district office.

"After shock chlorination, if there has been little or no reduction in rust staining, then iron bacteria are not a significant problem," continues Buchanan. "This means either dissolved or particle mineral iron are the problem and water treatment equipment will be required to improve it."

Before purchasing water treatment equipment, have an independent lab do a thorough chemical analysis of the water. Often water wells have a combination of mineral iron and iron bacteria. A chemical analysis will help identify mineral iron, iron bacteria and any other substances that could require removal as well.

"It's very important to know the pH and tannin levels of water as they could complicate iron removal," says Buchanan. "It is a good idea to get some recommendations from an independent water quality specialist. After receiving the recommendations, the landowner can contact several water treatment companies asking for recommendations on systems to solve the iron problems. Be sure to compare costs, warranty on the equipment, the companies' reputation and any travelling and service costs. Take the time needed to make the proper decision. In situations where the solutions range from $10 to $1,000, it's wise to start with the $10 solution and proceed from there."

Contact: Bob Buchanan
(780) 986-8985

Biotechnology research and regulations

The manipulation of crops through the use of biotechnology is increasing. Several varieties of 'novel trait' canola's have taken over the majority of acreage and will increase for 1999. There are now four types of herbicide tolerant canola; Roundup Ready, Liberty Link, Smart Trait, and a new Bromoxynil tolerant type, registered in February.

"Most of the major field crops and many horticultural crops are being manipulated through biotechnology," says Richard Guitard, cereal, oilseed and forage specialist with Alberta Agriculture, Food and Rural Development, Valleyview. "It is expected that a Roundup ready and a Smart trait wheat will be released early in the next decade. These are examples of what are called 'input traits'; crop varieties that have been modified to provide benefit to the producers of the crop. These input traits include tolerance to herbicides, insect and disease resistance and hybrids."

The process of using several of these traits is called gene stacking. New developments include drought and frost tolerance. Livestock research, at this time, is mostly focused on vaccines for animals and pharmaceutical production.

"Genetic traits that provide a benefit to food processors and consumers directly are called 'output traits'," says Guitard. "These include such things as: altering starch molecules in barley and wheat for fractionation, modifying the oil profile in canola for speciality oils, and producing higher solids content in potatoes for better french fries."

Another major area in output traits is the nutraceutical or functional food area. This includes such things as higher levels of anti-oxidant compounds, better balanced amino acid levels, removal of harmful compounds, food with vaccines, rice based food that allows diabetes sufferers to avoid insulin injections and milk derived products that prevent traveller's diarrhea. There are also industrial applications that can produce polymers for plastics.

"The potential for benefit from biotechnology derived products is almost unlimited," adds Guitard. "However, as with any new product or process, there must be a regulatory framework that ensures public safety."

Canada has a regulatory system that does ensure the safety of our food. The **Canadian Food Inspection Agency** (CFIA) is the lead agency for the regulation of agricultural products. **Health Canada** reviews all novel foods for food safety and sets the requirements for safety and risk assessment of all foods. It also identifies hazards and specifies the standards that food inspectors observe. The **Pest Management Regulatory Agency** is a unit of Health Canada and has the responsibility for registration and regulation of pest control products and it evaluates products that have pesticidal properties.

Environment Canada is responsible for evaluating the potential of new products to cause damage to the environment and **Agriculture and Agri-Food Canada** performs risk assessments on all new types of products

The approval process for a new product is involved and can take a long time to complete. The CFIA uses guidelines consistent with those used by international authorities. The principals are:

- build on current legislation rather than new legislation for new products;
- focus on product characteristics rather than the method of production. All products developed through recombinant DNA technology are evaluated for unintended results;
- conduct evaluations for each product on the basis of its unique characteristics and to establish appropriate safety levels based on the best scientific information.

"Once all the agencies involved have evaluated the product, a decision is made to allow or disallow its approval," says Guitard. "If the product is approved, then it can be commercialized. As was shown with rBST this is not a rubber stamp process. The benefits that can be derived from biotechnology are enormous. As with any new technology, there are concerns that must be addressed through rational discussion of the facts."

For further information there are several internet sites that merit a visit
Canadian Food Inspection Agency < www.cfia-acia.agr.ca >;
Canadian Biotechnology Strategy < http:\\strategis.ic.gc.ca >;
and, agricultural companies internet sites. A general search of the internet will provide more sites and information.

Contact: Richard Guitard
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Agri-News Briefs

Aquaculture recreational licences applications

The 1999 applications for recreational and commercial licences are now available at local Alberta Agriculture, Food and Rural Development district offices. Recreational licence fees are $10 for one year or $50 for five years. In addition to the licence fee, $42.80 is charged for site inspection services on new sites or for sites where licences have lapsed for more than one year. Licences are mailed to applicants once the pond or ponds pass the site inspection. Please note that a receipt is not considered a licence. For more information on aquaculture licensing, contact Jack Stewart, licensing coordinator, aquaculture section, Alberta Agriculture, Food and Rural Development, Lethbridge, (403) 381-5164. Government numbers are toll free by dialling 310-0000 first.

Alberta's Water Act

Alberta's new Water Act was proclaimed by the Lieutenant Governor on October 7, 1998 and came into force on January 1, 1999. A key part of the act is the registration of water use. Beginning April 1999, registration forms will be available at all Alberta Agriculture, Food and Rural Development district offices. Farm managers wishing to register historical water use into the future can pick up the applications from their local Alberta Agriculture office. Farmers have a three-year window in which to register water use. For further information, contact the local Alberta Agriculture district office.

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Agri-News

April 26, 1999

SFEP and GCP team up again in 1999

Summer Farm Employment Program (SFEP) applications will be available soon. High school students interested in a career in agriculture can also consider the Green Certificate Farm Training Program (GCP) as a way to enhance their learning, gain credits and earn a credential.

"SFEP provides Alberta's youth the opportunity to gain farm work experience as part of Alberta's Summer Temporary Employment Program (STEP)," says Christine Paproski, Program Delivery Specialist with Alberta Agriculture, Food and Rural Development, Edmonton. "Since the program began in 1972, it has helped more than 36,500 young people learn about career opportunities in farming."

Through SFEP, full-time farmers receive assistance to hire young Albertans from July 1 to August 31. The Alberta government pays up to half of the employee's monthly wage to a maximum of $330 per month.

"Prospective employees must be between 15 and 24 years of age and must not be a relative of the employer," says Paproski. "Up to 500 young people will be accepted into the 1999 program. Application forms are processed on a first-come, first-served basis and employers and employees must apply together."

Under the program, youth work a minimum of 30 hours per week and must be paid at least the provincial minimum wage. Minimum wage will be $5.65 per hour in the summer of 1999.

Application forms and program guidelines for SFEP will be available on May 3 from Alberta Agriculture, Food and Rural Development field service offices. Application forms will be accepted until May 28 or until all program funds are committed, whichever comes first.

"Employers interested in supporting enhanced learning opportunities for Alberta youth and students interested in learning about agriculture and earning high school credits and an employment certificate should also consider the Green Certificate Program," adds Robert Hornbrook, GCP supervisor with Alberta Agriculture, Food and Rural Development, Edmonton. "Youth interested in earning high school credits and certification should consult with their school counsellor or contact the GCP at (780) 427-2171."

Contact:	*Christine Paproski*	*Robert Hornbrook*
	(403) 427-3124	*(403) 427-4218*

This Week

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Conserve spring moisture with direct seeding

Some producers in northeast Alberta experienced poor emergence in 1998 due to exceptionally dry spring seeding conditions. Early crops had to survive on little or no rain for more than 40 days after seeding. Two questions often asked in hind site were: Should I have seeded deeper or packed more? Would more or less tillage have made a difference?

"There are two reasons for deeper seeding," says Ron Heller, reduced tillage agronomist with Alberta Reduced Tillage Initiative (ARTI), Vermilion. "One reason is to help seeds reach moisture, the other is to keep them in contact with the moisture long enough for adequate germination and emergence. Packing is essential for seed-to-soil contact and plays a vital role in reducing moisture loss. Since tillage drys the soil, there are few good reasons for tillage at seeding. Harrowing to seal up cracks and mulch the surface residue, however, can sometimes be part of a direct seeding system."

Soil conditions are an important consideration. Fine (clay) and course (sandy) textured soils naturally lead to different seedbed management strategies. Optimum seedling growth depends on soil porosity where water, air, nutrients, roots and shoots can move around as required. Organic matter is the key to soil porosity. Maximizing the return of crop residue to the soil from which it was grown builds the organic matter component. Reducing tillage helps maintain and improve the soil structure and leaves a protective layer of crop residue in the field. It is only beginning to be understood what impact this can have on our soils... after all, it took hundreds of years to recognize the drawbacks of tillage.

"Farmer-terms, like heavy, light, sticky, crusty, gumbo or mellow, accurately describe most soil conditions as a combination of texture & moisture," says Heller. "These conditions affect the performance of seeding equipment. Crop residue also affects opener and packer performance, but remember the influence it has on soil moisture before and after seeding. Direct-seeded crops are able to maximize use of available moisture."

Experience from conventional tillage practices can be helpful initially, but seeding management must change as the soil characteristics change with less tillage. Most direct seeders agree that equipment performance is influenced by soil, crop residue and topography. Together with speed and disturbance, these factors will determine how sophisticated the opener design or the operator skills need to be to achieve successful seeding.

"Optimum seed placement is often a result of the field 'finish', such as micro-climate furrows, residue cover, smoothness," adds Heller. "There are weed control and fertilizer placement implications, also. Re-seeding crops each year depends largely on a piece of iron coming in contact with soil and differences from field to field and year to year should be expected. From an equipment-design capability, the required machine settings for depth and packing are a function of **field conditions** at seeding time. The technology for direct-seeded crops continues to improve and many farmers are pleased with the moisture conservation they observe in their reduced tillage systems."

Direct seeding continues to be a trend that significantly reduces the need for tillage in the annual cropping system on the prairies. As a seeding strategy, it offers the advantage of firm, moist, well structured soil in the seeding zone and the best opportunity to maintain a quality seedbed for a reasonable time after seeding. As for seeding depth and packing, the best option is to **find the moisture**, that might mean a little digging if it's been dry for a while, and then dig a little more behind the seeder to see what's happening. The obvious goal is to **keep the moisture** there as long as possible. Packing the seed row and maintaining a residue cover are two ways to capitalize on existing soil moisture. Timely **rainfall**, nature's dividend, will ultimately compliment a producer's best efforts.

Contact: Ron Heller
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Direct seeding in wet springs

For farmers in the north and northwest parts of Alberta, the reasons for making the move from conventional seeding to direct seeding or zero till for moisture conservation is often flawed. Climatic conditions in this part of Alberta are such that in nine years out of 10, moisture is not a limiting factor and in some years excessive moisture is more of the problem than not enough.

"Direct seeding, or reduced tillage, is a new practice for many farmers," says Mark Olson, reduced tillage agronomist with Alberta Reduced Tillage Initiative (ARTI), Leduc. "Antidotal accounts from experienced direct seeders suggest fields that have been under direct seeding for five to seven years, are actually the first fields producers can get onto with equipment in a wet spring. However, when there is an abundance of rainfall in the spring the experience with fields that have direct seeded for only one or two years, those in a transitional period, is that these fields are simply wet and difficult to get onto with equipment."

In north and northwest Alberta this year, the amount of snow left on the ground is substantial and only Mother Nature knows how fast it will disappear and whether or not a wet spring is in store for farmers in that area.

"Under wet soils conditions, the whole idea is to get over the land with a single pass without sinking the tractor and/or seeding unit to the axles or rutting the field so badly that

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harvest operations become a nightmare," says Olson. "To accomplish this, the farmer must achieve maximum floatation with the seeding unit and minimum draft of the seeding tool."

There are number of factors involved that are immediate, short term solutions to wet soils in the spring. Seeding at a shallower seeding depth takes less draft. This is the most cost effective solution, but is already a common practice for those farmers direct seeding. Seed to soil contact is paramount for good even emergence and seeding depth can only be raised so far, before the seed is sitting on top of the soil surface. Dry conditions after seeding can cause catastrophic results with shallow seeded crops because of root systems near the surface.

A wider seedrow spacing can decrease draft and the total cost of the seeding tool. "Numerous studies on all crops across Western Canada have found comparable yields with nine-inch and 12-inch row spacing," says Olson. "Theoretically, a seeding unit that has been transformed from a nine-inch spacing to a 12-inch spacing will require 33 per cent less draft to pull the seeding tool. On the downside, swathing cereal crops is not a great option, unless done on a diagonal, since crop, especially poor, short crops, on wide rowing spacings tend to fall through the stubble to the ground and are near impossible to pick up with the combine."

For producers direct seeding under a high disturbance system, replacing wide openers such as sweeps, with narrower openers like spoons, is another idea that should be examined. There is a cost associated with replacing openers that should be weighed against renting a disc type machine from a neighbour or dealer in the area. Additionally, less soil disturbance may mean lower soil temperatures and delayed emergence and maturity.

"Purchasing tires with better floatation on the power and seeding unit, while an expensive alternative, is another option to look at," adds Olson. "Additional duels on the power unit has helped in many instances. Last, proper tire pressures and ballast, on the power unit will help pull the seeding unit through those especially wet areas. Check back with the local dealerships or tires companies to make sure the tires on the power and seeding units are within the specifications."

As for long term solutions, especially during the transitional period to direct seeding, the two factors to be wary of are straw and chaff management and crop rotations.

"As everyone who is direct seeding knows, straw and chaff management is critical to the success of the system," says Olson. "An even, wide distribution of the straw and chaff with the combine in the fall will solve 99 per cent of the residue problems. Alternating high residue crops, such as cereals, with low residue crops, such as canola and peas, can assist in managing residues. Last, the use of semi-dwarf, short straw varieties should seriously be considered."

The role of crop rotation in managing wet soil conditions in the spring is two fold. Dr. Dwayne Beck, Dakota Lakes Research Farm in Pierre, South Dakota, U.S., suggests that soils that are too wet to seed in the spring, do not have the proper intensity in the rotation. Proper crop rotation intensity is determined by the native vegetation that is a reflection of the local, long term, climatic conditions. Intensity looks at crops in the rotation and their water use. In areas where there is abundant moisture, inclusion of high water use crops, such as canola and alfalfa, on a more frequent basis is required, they should make up 40 to 80 per cent of the rotation.

The second component in crop rotations, is crops that can be fall seeded, such as winter wheat and canola. Winter wheat varieties have improved considerably in yield and winter survivability over the last five years and there is a developing market demand for the grain. Fall seeded crop research, canola being the most studied, continues to show promising results. Polymer coatings allow farmers to seed canola and a host of crops in the fall, making concern about getting on wet land in the spring a mute point.

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Waterborne parasite study

A three-year study is being conducted from 1998 to 2000 by a multi-agency, multi-discipline research team. The study is designed to determine sources of two waterborne parasites – *Cryptosporidium parvum* and *Giardia lamblia* – in the North Saskatchewan River Basin. The project was granted full funding from the Canada-Alberta Beef Industry Development Fund and the Alberta Agriculture Research Institute (AARI), and there have also been significant in-kind contributions from partner agencies.

"Cryptosporidium and Giardia are intestinal parasites that can infect humans and wildlife and can cause scours in young calves" says Dr. Merle Olson, professor of microbiology and infectious diseases at the University of Calgary, a practicing Veterinarian and a participating researcher on the project. "The parasites can be transmitted to other livestock or people through ingestion of food or water contaminated with fecal matter."

Cryptosporidium or Giardia, the parasite that causes beaver-fever, can cause severe gastrointestinal illness (i.e watery diarrhea, abdominal cramps, nausea, low-grade fever and dehydration) in humans. People with healthy immune systems who get infected with Cryptosporidium usually recover in seven to 14 days; however, in severe cases, people with weakened immune systems (i.e. people undergoing chemotherapy, AIDS patients, the elderly or infants) can die from this illness.

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In 1997, Cryptosporidium and Giardia levels were high in the North Saskatchewan River, the source of drinking water for several rural communities as well as the City of Edmonton. The highest parasite numbers occurred during spring runoff. Severe spring runoff conditions compromised the drinking water treatment process and resulted in low levels of parasites breaking through the treatment barrier to the finished drinking water. Consequently, the Capital Health Authority issued two boil-water advisories for people with compromised immune systems. No boil water order was issued for the general population. Fortunately, no outbreak occurred in 1997.

"The high levels of parasites in the North Saskatchewan River in 1997 led to meetings among various researchers and stakeholders interested in the problem. Researchers from the Universities of Alberta and Calgary, Alberta Environmental Protection, Aqualta, Alberta Research Council, Prairie Farm Rehabilitation Administration, Alberta Health and Health Canada partnered to identify possible sources of Cryptosporidium and Giardia in the North Saskatchewan River," says Sandra Cooke, biologist and project manager with Alberta Agriculture, Food and Rural Development, Edmonton. "Although all of the partners involved in this research are key players, a pivotal partner in the project is Aqualta, the City of Edmonton's drinking water company, that offers its expertise in Cryptosporidium and Giardia analysis."

"Aqualta has been monitoring for Cryptosporidium and Giardia in the raw and treated river water for the City of Edmonton for the past eight years," says Les Gammie, PhD., director of quality assurance, Aqualta. "The treatment process can remove 99.9 to 99.99 per cent of all the Cryptosporidium and Giardia; however, it is not a 100 per cent guarantee that these parasites will not get into the treated water supply. High levels of parasite cyst in the river water, along with rapidly changing turbidity and organic material levels, can compromise optimum operation of the treatment process causing an increased risk of these parasites reaching the treated water supply. If there is any significant compromise in a water treatment system, health authorities immediately issue a boil water advisory to safeguard the public. Aqualta and Capital Health have developed a comprehensive strategy for dealing with such situations."

Cryptosporidium and Giardia can occur in municipal sewage, livestock manure and wildlife feces. They are only a risk for drinking water supplies if carried to source water during runoff or are discharged in treated effluent. This study will be the first in Alberta to pinpoint specific sources of these organisms - the first step in reducing their numbers in raw water supplies.

The objective of this comprehensive research project is to determine whether municipal sewage, cattle or wildlife are significant sources of parasites to surface water. The long-term goal is to develop strategies to protect surface water from contamination. The research project consists of two major components: water quality monitoring; and parasite prevalence surveys.

Streams, municipal sewage effluents, and raw and treated drinking water supplies are being monitored in the North Saskatchewan River basin, west of and including the City of Edmonton. During the first year, 1998, a survey of all major streams, effluents and drinking water supplies was conducted to get an understanding of the issue. The second and third year of the study, 1999 to 2000, will include intensive stream monitoring in six study watersheds as well as continued monitoring of all wastewater and water treatment plants.

Smaller water treatment plants in the watershed have not had a regular monitoring program for Giardia/Cryptosporidium. This study will provide these plants with data on raw water and treated water levels in their facilities, and provide some measure of the degree of risk they face. In addition, monitoring will be conducted on the effluents from all rural wastewater treatment facilities. This information will be valuable in understanding what role municipal sewage effluents play as a source of parasites to surface waters.

To assess the prevalence of the parasites, researchers collected over 2,000 fecal samples of wildlife species, cattle and municipal sewage in the North Saskatchewan River basin. Wildlife, cattle and municipal sewage sampling will continue to be surveyed throughout the project.

"It is not clear what part agriculture plays as a potential source of waterborne parasites in a large northern river basin," says Cooke. "The agriculture industry, especially the beef industry, must be commended for supporting this pro-active research on the issue and identify potential sources of parasites to surface water. Information gained from this research will benefit producers, health authorities, and water and wastewater treatment facilities and can be applied to other regions of Alberta and Canada."

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New website for CABIDF

Alberta's cattle producers, and those in the agriculture and food industries in the province, now have access to a new beef website. The Canada Alberta Beef Industry Development Fund (CABIDF), under the auspices of the Alberta Cattle Commission (ACC), has launched a comprehensive site that includes the latest information on the CABIDF, including its mandate, structure, administration, research projects funded and the latest CABIDF news.

"The CABIDF is a $16.4 million fund established with equal contributions from the Federal and Alberta governments," says Janet Kanters, communications officer for Alberta Agricultural

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Research Institute (AARI). "All CABIDF dollars go to research projects that address specific needs of the Alberta beef industry. The ACC, representing all cattle producers in the province, selects the priority research projects and oversees CABIDF administration, while the AARI handles the scientific evaluation and management of research projects."

The CABIDF website's key sections include an overview of the fund structure and partners, funding objectives and process, approved projects, a news site, copies of special beef research editions of the Alberta Cattle Commission's *Grass Routes*, a variety of resource materials relating to beef production and an introduction to the CABIDF board of directors.

Visitors to the site can access copies of the research reports on all CABIDF projects funded to date. The reports, based on interviews with researchers, outline project goals and targeted results. Finally, a section is included for those interested in submitting a research proposal.

The new CABIDF web site can be found at:
< **http://cattle.ca/Prov_Assoc/Acc/CABIDF/index.html** >

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Warm and dry conditions continue into March

March came in like a lamb - and went out the same way. The province experienced above normal temperatures and below normal precipitation totals during the month.

"The provincial average precipitation was 65 per cent below the 1961 to 1990 average of 21.7 mm," says Peter Dzikowski, provincial agricultural weather resource specialist with Alberta Agriculture, Food and Rural Development, Edmonton. "This was very different from last March, when above normal snowfalls were reported across the province."

The provincial average temperature was 1.9 degrees above the 1961 to 1990 average of -4.1 degrees C. The warmest conditions were reported in the southern, north eastern and peace regions, where temperatures were 2.3 to 3.2 degrees above normal. The central and north western regions were 0.2 to 1.0 degrees above normal.

"Temperatures across the province dropped below normal during the first week of March," adds Dzikowski. "The second week brought a return to normal or above normal temperatures, interrupted by a cold spell at the end of the second week. Temperatures were above normal during the third and fourth weeks of March."

The greatest temperature departures were reported in northern Alberta. Temperatures were 5.5 degrees above normal at Fort McMurray and 4.8 degrees above normal at High Level. Edmonton, the coldest spot in the province, had average temperatures of -5.9 degrees

Lacombe reported precipitation amounts 185 per cent of normal. Lacombe and Red Deer were the only stations reporting above normal precipitation. Three Hills and Bow Island both reported 0.3 mm of precipitation, the lowest amount in the province.

The provincial averages are based on data recorded at 55 Environment Canada climate stations across Alberta.

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4-H'ers choose career paths

Today's workforce is a changing one that often leaves young people faced with such harsh realities as increased competition, fewer jobs, higher mandatory skills and education requirements. Young people must make the right choices early in order to gain an edge. The 4-H program is committed to giving its young people that edge and provides training through its National 4-H Careers Conference to achieve this goal.

"Curtis Litun from Vegreville and Crystal Morrison from Innisfail participated in the 1999 Conference, held in Winnipeg, Manitoba, March 24-28," says Marguerite Stark, provincial 4-H programs specialist with Alberta Agriculture, Food and Rural Development, Airdrie. "The conference used industry tours, workshops and speaker presentations to encourage 4-H members to explore and carefully consider the various career opportunities available to them in the agriculture sector and other industries."

Litun and Morrison joined 14 other national 4-H delegates and 33 senior Manitoba 4-H members to participate in panel discussions, examine career choices and entrepreneurship and receive valuable career guidance and employment tips through a job preparation workshop.

"The 4-H participants had the opportunity to put their skills into practice during mock interview sessions," adds Stark. Several experienced and high calibre professionals contributed to the conference, including: Ray Coté of University of Manitoba Career Planning and Placement and Brent Belloch, Royal Bank of Canada Agricultural Advisor. There was a panel of three outstanding young entrepreneurs who talked about how courage to change, persistence and a desire to succeed can yield success and notoriety. Delegates also had the opportunity to visit a variety of Winnipeg area businesses and

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organizations including facilities such as United Grain Growers, the Royal Bank of Canada, the Department of Natural Resources and the Winnipeg Commodity Exchange.

"The success of any 4-H event is largely due to the generous financial assistance provided by its sponsors," adds Stark. Numerous companies and provincial sponsors support the National 4-H Careers Conference. Canadian 4-H Council sponsors providing major support for the 1999 conference include: Saskatchewan Wheat Pool, Investors Group, Royal Bank of Canada, Pioneer Hi-Bred Limited, Canada Safeway and Agriculture and Agri-Food Canada. Canadian 4-H Council officials join Manitoba organizers and the 1999 delegates in thanking this year's conference sponsors for helping to develop tomorrow's industry leaders.

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Agri-News Briefs

Drilling waste management

Drilling waste must be disposed of using environmentally acceptable methods that comply with strict guidelines. Alberta Agriculture, Food and Rural Development has produced a new 17-minute video explaining the proper disposal of drilling waste from oil and gas operations in Alberta. Landowners, the oil and gas industry, educational institutions and other interested parties will find this video a good source of information on drilling disposal methods and waste management guidelines. The tape focuses on the rights of the landowner, covering:

- guidelines regulating drilling waste in Alberta
- five common types of drilling waste disposal methods
- landowner rights
- oil and gas industry responsibilities
- the three government agencies responsibilities for regulating drilling waste management practices in the province

These issues are looked at from the points of view of the oil and gas industry, the government agencies involved and the landowner. ***Drilling Waste Management*** (VT 336) is available for sale at the Publications Office, 7000 - 113 Street, Edmonton, AB T6H 5T6. Cost of the video is $10, plus $2 for shipping and handling, and GST. To order by phone, call the toll-free line at 1-800-292-5697. Visa and MasterCard are accepted.

Agri-News

May 3, 1999

The Boxelder bug

Spring and fall are the times when the adult boxelder bug becomes most noticeable as it wanders through houses, hangs on the warm south-facing sides of houses or fences, is generally just a nuisance. Fortunately, this bug doesn't feed on anything they find in the house, nor does it bite. Boxelder bugs are found anywhere in North America where the Boxelder (Manitoba maple) grows.

"The adult boxelder bug is grey-brown to black with three red lines on the upper part of the body, as well as red margins on the wing covers," says Shelley Barkley, information officer at Alberta Agriculture, Food and Rural Development's Crop Diversification Centre South, Brooks. "The eggs are bright red as is the nymph when newly hatched. The nymph resembles an aphid in shape, but moves faster and is bright red. As the nymph ages, black wing buds begin to grow, which eventually will cover the back of the insect when it reaches adulthood. These wings allow the bugs to fly, helping to increase their mobility."

Normally boxelder bugs emerge from winter hibernation when the buds of the boxelder begin to open, they quickly mate and lay eggs. Eggs are deposited on the tree in the bark crevices, on fences or even on the ground. In about 10-14 days the eggs hatch, and nymphs begin feeding on the developing boxelder foliage by sticking their mouth parts into the plant tissue and sucking. Summer finds the nymphs and adults feeding on the female boxelder, on foliage, flowers, tender branches and seeds. Occasionally, they do feed on other trees and fruit, but their feeding damage is very minimal.

"In the fall, the bugs leave the trees, and begin searching for a hibernation site," explains Barkley. "This can be under debris in the yard or under loose bark on the tree. Warm winter weather can bring them out of their hibernation sites, where they will be found on south facing foundations, fences or logs sunning themselves."

Spraying now for these pests is not necessary, excluding the pests from the house is the best way to control them. Seal cracks and holes in foundations, walls, doors and around windows with patching compounds, weather stripping, caulking and screens. Once in the house, a vacuum cleaner or broom and dust pan works well to remove the bug from the house.

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"The boxelder bug is going be to around until the maples start to bud, then they will move there, that is until fall, when they begin the search for a cozy place to spend the winter once again," says Barkley.

Contact: Shelley Barkley
(403) 362-1305

Weedy pastures – a problem or an opportunity?

A weed can be defined as any plant that is growing where it is not desired. When considering pasture weeds, it is difficult to imagine a place where producers would want them to grow.

"Looking at dreaded weeds from a different perspective could help with control efforts," says Lorne Erickson, forage specialist with Alberta Agriculture, Food and Rural Development, Rimbey. "Weeds, typically broadleaf annuals and perennials, are not as productive or as tasty to grazing livestock as are grasses or legumes and are often blamed for poor pasture productivity. However, it is likely that the cause and effect logic is reversed and the presence of weeds are a result of poor pasture productivity.

"Conservation is a relatively new term but a very old concept. Humans cannot even take credit for being the first conservation managers. The credit for being first has to go to nature and its army of weeds. Weeds are the automatic environmentalists. When soil is exposed to the effects of climate, trusty weeds move in and quickly offer protection from wind and water erosion. Without this fast moving environmental squad, years of soil improvement could be lost in a single season. The weeds then provide protection for grass and legume seedlings to begin their slow but steady return."

Many of the reasons weeds are hated are the same reasons they are so good at their task. Weed seeds must be well distributed in grass lands and remain viable in the soil for long periods so they are always ready to respond to disturbances. Being unpalatable or even poisonous to livestock ensures that they can protect a site until grass and legumes are re-established.

"Weeds are present in many well-managed pastures, but the density and vigour of desirable plants keeps the weed population at an almost invisible level," adds Erickson. "Weeds are good indicators of pasture stress. An abundance of weeds means that there are opportunities for better management of grazing and fertility, although the solution may not be fast or cheap."

The traditional 20th century solution is to apply herbicides or to cultivate the pasture and re-seed to forage. A more profitable option is to employ a complete pasture management plan that could include herbicides, fertilizer (chemical or manure), rest, cross fencing and alternate water sources. In some cases cultivation may be the best option, but remember, disturbed soil is an invitation for weeds to grow so the weed problem could get worse before it gets better.

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(403) 843-2201

4-H'ers celebrate Canadians – differences & similarities

Canadian citizenship carries with it many roles and responsibilities and offers numerous opportunities, rights and freedoms unparalleled in many countries. Alberta 4-H'ers Shirley Anderson, Minburn; Terri Brost, Irvine; Shawn Gist, Westerose; Terra Krysik, Mayerthorpe; Alberta Vaughan, Crossfield; and, Rhonda Wildeman, Clive joined 48 other 4-H members from across Canada in examining their rights, roles and responsibilities to their nation as they gathered in Ottawa, April 9-15 to participate in the 28th annual National 4-H Citizenship Seminar.

"The theme of this year's conference, *Canada...Celebrate our Differences...Explore our Similarities,* focussed on the opportunities inherent in living in this country, the diverse cultural make-up of the population and issues which will impact Canada beyond the year 2000," says Marguerite Stark, provincial 4-H programs specialist with Alberta Agriculture, Food and Rural Development. "Delegates learned that every Canadian has an equally important role to play in Canada's social fabric and future."

Conference participants explored the issue of Canadian diversity and multiculturalism with a speaker from the Cross Culturalism and Race Relations Institute. Mr. Patrick Carson, a former Executive with Loblaws Companies, also spoke and provided delegates with an insight of global issues and how they will impact on Canada. Participants attended a Citizenship Court Ceremony where they re-affirmed their Canadian citizenship side by side with individuals being sworn in as new Canadians.

Delegates were also addressed by a Member of Parliament, who outlined the duties of the position and then toured the Parliament Buildings and the Supreme Court, viewed Question Period and joined M.P.'s from their home ridings for a Parliamentary Luncheon. Delegates then sat in the Senate while being addressed by the Speaker of the Senate, The Honourable Gildas Molgat, and were hosted in his chambers for an informal reception and discussion. Delegates also experienced the political process first-hand by participating in a simulated House of Commons debate. Political parties were formed to argue the controversial issues surrounding euthanasia.

Cont'd on page 3

The success of any 4-H event is largely due to the generous financial assistance provided by its sponsors. Major supporters of the 1999 conference included: Department of Canadian Heritage, Agriculture and Agri-Food Canada, Ambassador Travel Plus Golf & Cruise Centre, The Masonic Foundation of Ontario, Canadian Pacific, Canadian Imperial Bank of Commerce, Canadian Seed Growers' Association, SeCan Association, Manitoba 4-H Council, Canadian Cattlemen's Association and University of Guelph. Canadian 4-H Council officials join the 1999 delegates in thanking this year's conference sponsors for their valuable support and their commitment to the 4-H movement and Canada's rural youth

Contact: Marguerite Stark
(403) 948 8510

On-line Herbicide Selector

Choosing a herbicide can be difficult. The first step is knowing what weeds are present in a crop or field and then choosing the correct herbicide to control the situation. Throw into the equation the variable of cost per acre and there are considerable choices, mixes and calculations that a producer needs to work through before actually getting into the field and controlling a weed problem. Now there is a new electronic program that can help producers quickly and easily.

"The Herbicide Selector program, after much work and data input, is now on-line and ready for producers to use," says Shaffeek Ali, provincial specialist, weed control and pest regulatory services with Alberta Agriculture, Food and Rural Development, Edmonton. "The program is easy to follow and provides producers with many options and choices based on the weeds present, product and product mixes, cost, and limiting factors, such as grazing and cropping restrictions."

To use the Herbicide Selector program, go to **<http://www.agric.gov.ab.ca/agpesticide.html>**

Click on Java version, if the computer supports that program, or Non-Java version. There is a considerable amount of information used by the Herbicide Selector program so it may take a few moments for the program to get started.

Using selection boxes, a producer can choose up to four weeds in the spaces provided. Another box allows the user to select the type of crop being grown. It is important to fill in the boxes on growth stage for both crops and weeds. When this information is entered, the Herbicide Selector will pull together recommended herbicides, and in some cases herbicide mixes, appropriate for the crop being grown and effective on the weeds indicated.

"The Herbicide Selector will give a list of appropriate herbicides that the producer can choose from," says Ali. "From this point by double clicking on the product/mixture you select, there is a direct link to the product details, information similar to that in ***Crop Protection 1999***, the *Blue Book* writeup.

The information about each product or mix, includes: product, common name and manufacturer; formulations; registered mixes; crops; weeds controlled; weeds suppressed; when used; how to apply; application tips; how it works; expected results; effects of rainfall; movement of soil; grazing and cropping restrictions; toxicity; precautions, first aid; storage; and, resistance management.

"A feature producers may find very helpful is the calculator," adds Ali. "When considering a product, go to the product details page and click on Calculator. This brings up a screen that lets producers indicate how many acres will need to be treated, the price per litre of the product, the tank size of the sprayer being used. The rate of application and requirements for water, litres per acre, are already calculated and included A simple click on the 'calculate' button and the program will calculate the total cost of the product for the acres indicated; how many containers of product will be needed; a cost per acre figure; and, how many tank-fulls it will take to spray the number of acres in question. The calculator is interactive and while it lists the suggested retail cost, the user can insert his own prices."

The program is simple to use and the step by step process is easy to follow.

Contact: Shaffeek Ali
(780) 422 - 4909
e-mail: shaffeek.ali@agric.gov.ab.ca

The latest in soil sampling

Soil sampling has always been the most difficult part of soil testing. But thanks to a new approach, called benchmark soil testing, soil sampling may become easier and a lot more accurate. Research done by Alberta Agriculture, Food and Rural Development and Norwest Labs in the early part of this decade showed that a soil sample taken from a small, 1/4 acre benchmark site could adequately represent a field. Furthermore, compared to conventional samples, results were more reproducible so year-to-year trends were better reflected by the benchmark samples.

"A crucial part of the benchmark approach to soil testing is that the same sites must be found each year," says Doug Keyes, agronomist with Norwest Labs, Edmonton. "Until recently, this was a problem. Now with Differential Global Positioning Systems (DGPS) becoming widely available, and more affordable, this is no longer a problem. These systems can be used to easily navigate back to the same sites year after year."

Cont'd on page 4

To get producers started on Benchmark Testing, a concise, seven-page document entitled ***A Guide to Benchmark Testing*** has been prepared. It includes some field research data, discusses how to select benchmark sites, describes ways of marking the sites, outlines users' experience with the new technique and tells how benchmark testing affects fertilizer decisions.

The guide is available through Norwest Labs. For information please contact Doug Keyes at (780) 438-5522, fax (780) 434-8586, e-mail <dougk@norwestlabs.com> or Grant Gillund, soil management specialist with Alberta Agriculture, Food and Rural Development, at (780) 656-3613, e-mail <grant.gillund@agric.gov.ab.ca>

Contact:	*Grant Gillund*	*Doug Keyes*
	(780) 656-3613	*(780) 434-8586*

Calf scours

For some, calving out beef cows has been on-going for many months now. For others, it's just about to start. Nevertheless, it's a very important time in a beef producer's calendar of activities.

"Calving time is the time to reap the rewards of last year's work. Unfortunately for some, the rewards have been hard to come by," says Bill Grabowsky, beef specialist with Alberta Agriculture, Food and Rural Development, Wetaskiwin. "Calf scours or diarrhea has reared it's ugly head. Depending on the extent of the outbreak, it can be a nightmare for some. A great deal of time, treatment and money will be spent to bring this perennial problem under control. In many cases, before control takes place, death losses will occur."

What causes calf scours? Scours in young calves can be caused by nutritional factors, bacteria, viruses and protozoa. Calf stress, brought on by inclement weather, over-crowding, poor sanitation and contaminated calving grounds unite with some or all of the above four causes to form calf scours.

Why do calves get scours? The usual reason is that a calf's intestinal antibody protection is insufficient to fight off the infectious agents. The infected intestines cannot absorb the good nutrients and fluids from the colostrum and/or milk and also, the same inflamed gut secretes more fluids than normal. The result is dehydration and, if it's severe enough, it becomes the primary cause of death. In some cases, the infectious agent is secondary. Many scouring calf losses, caused by bacterial scours, can be reduced if prompt attention is adhered to. Fluid and/or electrolyte therapy is recommended. The local vet clinic is the best place to get the latest information on treatments and products to use.

What is dehydration? Dr. Jeff Grognet, a vet from Surrey, B.C. wrote an article for a prominent beef cattle magazine, outlining calf dehydration and what to look for. There are five conditions to assess loss of body fluids and they are rated as mild, moderate and severe.

"The first thing to do is apply the skin test," says Grabowsky. "This test of lifting the skin over the eye or on the back of the calf's neck to form a "tent" is rated in seconds. If the skin flattens, after released, in less than two seconds, you have mild dehydration. If it takes three to five seconds, moderate dehydration has occurred, and severe dehydration is occurring when five seconds has gone by and the skin hasn't flattened. Next, check the wetness of the eye surface. Severe cases of dehydration has occurred when the eye surface is dry. If it's slightly dry - moderate levels have been reached and if the eye surface is moist, mild dehydration has occurred. Check the temperature of the feet. If the feet are warm to the touch, only mild dehydration has occurred. If the feet are cool or cold to the touch, moderate or severe dehydration is setting in.

"The next factor in dehydration can be assessed by looking at the eye appearance. Mild losses of dehydration will occur if the eye appears normal but if the eyes are slightly to very sunken, moderate to severe fluid losses have occurred. Lastly, if the calf can stand, mild cases of fluid loss has occurred. If the calf must be assisted to stand or if the calf is "flat out" or comatose, it is going into the moderate to severe stages of dehydration. To be severe, a calf will loose over 10 per cent of it's body fluid. In mild cases only five per cent is lost. If calf diarrhea is to be brought under control, fluid therapy is a must."

There are many reasons for scouring calves and scour prevention needs to start early. Prevention involves talking to a vet, keeping up-to-date on the latest prevention techniques and products like vaccines. Keeping the cow herd well-fed and balanced for energy, protein, vitamins and minerals goes a long way in providing colostral immunity to the newborn calves. This is where scour prevention starts - one year before calving!

Contact:	*Bill Grabowsky*
	(780) 361-1240

Agri-News Briefs

Ag Ambassador Fair

On May 27, 1999, at Red Deer's Westerner Exposition Grounds, more than 1,000 students, Kindergarten to Gr. 6, will tour and participate in a variety of hands-on exhibits and activities. The fair will showcase the Ag Alberta School Fair entries. Stock dog demonstrations and model auctions, using 'funny money', will be highlights. Following an action packed, structured day for students, Red Deer Junior High and High School students and members of the community are invited to celebrate Agriculture Awareness by dropping in to the fair from 3:00 to 4:00 p.m. The visitors will be able to check out the action and at 4:00, attend a performance by the Multi-Youth Theatre Troop of ***Harvesting the Stars***. Admission is free. Passes to the play will be available in schools and at the door. As with all Ag in the Classroom events, volunteers are appreciated. For further information, contact Betty Gabert, Ag in the Classroom coordinator, (780) 427-4225.

Beef Technology Specialist Appointed

Mr. Rob Hand joined the beef, dairy and sheep group in the Animal Industry Division of Alberta Agriculture, Food and Rural Development on April 1, 1999 as the new beef technology specialist. He will work out of an office in Lacombe with the Western Forage Beef Group. Hand has been a beef specialist with Alberta Agriculture since 1979 serving in both the northwest and central regions. He has been a leader in beef resource development working on teams that have developed products such as ***Cowbytes***, and has contributed substantially to written extension materials and scientific extension publications. He has travelled extensively in the People's Republic of China consulting for Alberta companies and representing Alberta Agriculture. In his new role, Hand will be responsible for developing and packaging beef information and technology and be involved in technology transfer to specialized clients and in research that improves industry competitiveness and sustainability. On international projects, he will network with Alberta Agriculture staff to provide extension resources for projects such as China Beef Development. For more information, contact Rob Hand, Western Forage Beef Group, Lacombe Research Centre at (403) 782-8020.

Special crops conference proceedings

The Proceedings of the November 1 to 3, 1998 Special Crops Conference – *Opportunities and Profits II Into the 21st Century*, is now available. The diversification opportunities made available through new crop research and production were featured at the 1998 conference. The 160 page Proceedings includes information on many topics to assist Albertans interested in special crops. Topics covered include potential for crop diversification medicinal plants; value-added processing of prairie pulse crops; nutraceutical research; where the herb industry is headed; greenhouse production of echinacea; marketing and assessing a new venture. The price of the ***Special Crop Conference Proceedings*** is $15 (plus GST). Also, two video tapes, priced at $20 each (plus GST) and four audio tapes priced at $10 each (plus GST) are available The videotapes include:

Tape 1 – *The Potential for Crop Diversification in the New Millennium; Why is Diversification Important for Canada?; Crop Diversification in Western Canada – A Success Story*

Tape 2 – *Medicinal Plants: A New Diversification Opportunity?; AVAC Corporation – Stimulating the Growth of Alberta Agri-business; Agricultural Value-Added Engineering Centre – A New Resource; Assessing the Feasibility of a New Venture.*

The four audio recordings include:

Tape 1 – *Pulse Session*;
Tape 2 – *Alternate Field Crops Session*;
Tape 3 – *Medicinal Plants Session*; and,
Tape 4 – *The Next Millennium*.

Proceedings, video tapes and audio tapes can be purchased from the Alberta Agriculture, Food and Rural Development's publications office, 7000 - 113 Street, Edmonton, AB T6H 5T6 or call the publications office toll free at 1-800-292-5697 or 427-0391 in Edmonton. Please add $2 (plus GST) for shipping and handling. For further information on special crops and future special crops conferences, contact Nabi Chaudhary, chairman Special Crops Product Team, Alberta Agriculture, Food and Rural Development, Edmonton, (780) 422-4054.

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Agri-News

May 10, 1999

Brown Evergreens – what to do?

Browning of evergreens shows up with warmer temperatures of spring, especially after a mild winter. Browning affects the appearance and growth of highly prized evergreens and in cases were severe injury occurs and most of the needles are lost, the plant can die.

"Browning can be very selective where it appears on the tree or shrub," says Shelley Barkley, information officer at Alberta Agriculture, Food and Rural Development's Crop Diversification Centre South, Brooks. "It can occur on a few branches at the top or sides, on one side or on the entire tree. Each evergreen will respond with different colors, cedar leaf scales will fade from green to light tan or reddish-brown. Branches or branchlets of junipers turn brown or orange. The needles of spruce and pine turn brown, yellow or even a pinkish colour and Colorado blue spruce can turn a purplish-brown."

Winter drying of needles occurs in warm winters as moisture is continuously being lost through the needles and can't be replaced as the roots are in a dormant state. Winds, either warm or cold, suck the moisture from the needles. Sometimes the snow-cover line may be noticeable, since the snow offers protection from drying. On warm, sunny winter days, radiation from the sun or reflection from snow and light-colored buildings can increase the leaf temperature to 20 degrees Celsius over air temperatures. This will cause moisture in the stems and branches to become exhausted.

"Careful pruning will be required to restore the form of the evergreen but wait with the pruning until you are sure what is dead and what is going to grow," says Barkley. "If the soil in the root zone is dry, give the plant a good soaking now, to prevent further drying damage.

"Dealing with browning is a matter of prevention. Keep evergreens well watered during the spring and summer, but don't drown, and fertilize very lightly, if at all. Keep plants pest free. Water well late in the fall, to make sure the plant is as pumped full of water as possible."

Contact Shelley Barkley
(403) 362-1305

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Alberta
RURAL DEVELOPMENT

Farm safety day for children

Falun Women's Institute partnered with Falun, Lakedell, Pipestone and Usona communities to complete a project called *Farm Safety Day for Children aged 6-15 years*. This project was started because the Institute and the communities felt a need to educate youngsters in all aspects of safety on the farm. Applications were sent through the local schools and one hundred children were accepted.

"The children were divided into groups of 10 according to age," says Joyce Sjogren, spokesperson for the Falun Women's Institute. "Each group was supervised by a team leader who remained with them throughout the day. For easy identification, the leaders and their 10 children wore colour-coded name tags."

Ten sponsors volunteered time and equipment to give hands-on demonstrations and talks. These included:

- RCMP gave safety tips on bicycle and gun safety;
- the Fire Department gave details on safety checks on the farm and what to do in an emergency;
- Emergency Services showed some basic first aid and taught the children how to access 911 properly;
- an equipment company showed the hazards relating to power take-offs and grain augers;
- proper handling and wearing apparel of all terrain vehicles and snow mobiles was discussed at another station;
- hazards and injuries caused by lawn and garden tractors was represented;
- health sponsors demonstrated dug-out and slough safety, thin ice and sun protection;
- chemical safety was discussed;
- a local vet described animal diseases and the importance of staying out of harms way;
- an electrical station volunteer told his own story and corroborated it with a visible injury making a terrific impact on both children and adults.

Solomon Kyeremanteng, head of Alberta Agriculture, Food and Rural Development's Farm Safety Program, watched and, as he put it, learned something himself from the demonstrators.

"At the end of the day, all the children received a Certificate and goodie bag and a good sized stake with a warning sign for water hazards," adds Sjogren. "The mother of one six-year-old said her daughter laid the law down to her mother saying, "One seat, one person, Mom." She was relating to lawn mowers and tractors. Another wouldn't let his parents rest until the water hazard stake had been placed at a swollen creek near his home. In a lot of homes on the night of April 10th, the table talk was sure to be on what had transpired during the day and especially on the volunteer who lost his legs in an electrical accident."

Pat Netzer, Charlotte Stange and Joyce Sjogren were instrumental in getting this project going and will be administering it again next year along with the help of the communities, the sponsors, team leaders and the many volunteers.

Contact: Joyce Sjogren
(780) 352-7408

Manure management has geared-up

The program that pioneered ***Gear-Up*** for farm business planning, helped over 200 Alberta farmers toward better manure management.

"Over 20 manure management workshops were sponsored this winter by the Farm Business Management Program (FBMP), the Alberta Cattle Commission (ACC) and the Alberta Environmentally Sustainable Agriculture (AESA) Program," says Tamara Lewis, conservation economics agrologist with Alberta Agriculture, Food and Rural Development's conservation and development branch and project manager of the workshop process. "The cost of the two day workshops was $125 and included aerial photographs of each participant's operation. Approximately 200 producers attended workshops that covered the province from Hines Creek in the north, Vermilion in the east to Fort McLeod in the south."

The workshops were a quick response to a growing demand for better manure management information. Alberta Agriculture staff built on the resource management planning module at the Level 3 of Gear-Up workshops. Ron McNeil and Brenda Sawyer of Landwise Inc. produced the manure management workshops with Alberta Agriculture. They also prepared the workshop materials with a review by Alberta Agriculture staff.

"A wide variety of Alberta Agriculture staff, along with Agriculture Canada staff, partnered as presenters at the workshops," adds Lewis.

Farmers said the best parts of the workshops were:

- manure and phosphorus loading and nutrient management
- water quality issues
- hands-on exercises that relate to their own operation
- overview of planned legislation

They identified additional needs to make the workshops better:

- feed quality and nutrition information
- composting, manure storage and transportation (options and costs)

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- tighter presentations, a one-day workshop
- more specific information about impacts on the environment.

The workshops helped reduce anxiety over the economic costs of better manure management. A producer who was asked, "What is the most significant concept you learned?" said, "Knowing that I did not have to move my feedlot, just make adjustments to where the runoff goes."

Contact: *Tamara Lewis*
(780) 427-3819

Rolling field peas can reduce harvest headaches

Once field pea acres are planted, questions arise about rolling pea fields – is it a good practice? and when is the best time?

"Some field pea growers don't roll pea fields. Often, these individuals use low disturbance; direct seeding systems and fields are left fairly flat after seeding," says Terry Buss, pulse and special crops specialist with Alberta Agriculture, Food and Rural Development, Vermilion. "These fields also have few rocks on the surface and few hills. The harvest method used in this situation is usually swathing and not straight combining."

Soil ridges and lumps left from high-disturbance tillage and seeding operations can result in earth tagging, dirt being taken into the combine and being mixed with harvested peas. This is the most common problem in straight combining situations. Running a header through dirt and stones also results in increased guard and sickle section wear and damage.

"Soil lumps and rocks can plug-up sickle sections, stalling the knife or at least interfering with its ability to cut the crop," says Buss. "At the very least, this means frequent stops. Field peas can be a challenge to harvest but rolling can reduce or eliminate some of the potential problems."

The ideal time for rolling is right after seeding or at least within a few days after seeding, taking into consideration soil texture. However, if soil is moist and prone to crusting, rolling can cause emergence problems for the crop. In this case, peas should be rolled after they have emerged.

"Rolling can pulverize fragile soil, so if wind or water erosion is a problem, roll peas after emergence," adds Buss. "The two to three node stage, when peas are about three inches high, is considered the best time for rolling."

Research shows that, if done correctly, rolling can be done up to the five node stage and not effect yield. Do not roll peas when they are wet with rain or dew. This increases the chances of leaf damage and disease spread within a field. Rollers should have no water ballast in them when used on field peas whether before or after emergence.

"Make sure to frequently look at the condition of the peas as they are rolled," says Buss. "If pea stems are being broken off or plants are being pulled out or tipped out of the soil, changes must be made to prevent this damage, sometimes just slowing down will do the trick. Plants being tipped out or pulled out of the soil has been a problem on peat soils where post-emergent rolling isn't advised."

Rolling after emergence can also reduce the window for herbicide application. Weed control in field peas is critical to protect yield and applying herbicides at the correct time should take precedence over rolling. It is more important to protect the investment and have a crop to harvest, even if the harvesting may be a little more difficult.

Contact *Terry Buss*
(403) 853-8101

Lac La Biche 4-H'er attends Washington conference

Raymond Cloutier from Lac La Biche joined nine other senior 4-H members from across Canada to represent their province and Canada internationally as they participated in the 69th Annual U.S. National 4-H Conference at the National 4-H Centre in Washington, D.C. The group was chaperoned by Marguerite Stark, provincial 4-H programs specialist with Alberta Agriculture, Food and Rural Development

The conference, held April 11 to 17, 1999, brought together 320 delegates from across the United States as well as the Canadian contingent and other international guests. The theme of this year's event was *Beyond Barriers* and the focus, as in the past, was to help chart the future of the 4-H program

"The conference is not a workshop where delegates are taught but is described as a working conference which encourages delegates to work together to develop recommendations for change, and innovative new ideas and approaches that will improve the direction of the overall 4-H program and make 4-H better for future generations," says Stark. "Delegates participated in consulting group sessions, working on issues facing youth and the 4-H program such as Diversity in 4-H, Adolescent Peer Pressure, 4-H Alumni, Developing Leadership, and Ethics & Morals."

Delegates also visited the Canadian Embassy and other points of historical and political interest around Washington, including Capitol Hill. Prior to their US experience, Canadian delegates assembled in Ottawa for an orientation which included tours of Parliament Hill, the Supreme Court and a ceremony at a Citizenship Court.

Canadian participation in this prestigious U.S. conference has been fully funded by The Semex Alliance since 1987. Semex, a world leader in livestock genetics and maintains that "today's

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youth are the key to tomorrow's agricultural industry; our best resource and our future". The Canadian 4-H Council, the 1999 delegates, and the more than 100 delegates who travelled to the US before them under the sponsorship of The Semex Alliance, are very grateful for their involvement, support and generosity.

Contact: Marguerite Stark
(403) 948 8510

Agri-News Briefs

Fairview College/Laegaard Landbrugsskole exchange

On April 18, 1999, eight Fairview College agriculture students and Dalin Bullock, a Fairview College coordinator of agriculture technology programs, left for Denmark as part of an eight-week exchange between the College and Laegaard Landbrugsskole, an agricultural college in Holstebro, Denmark. Students will tour a variety of Danish farms and then disperse to work on agricultural operations of their choice. The exchange program works on a cost-recovery basis. In July, students from Laegaard Landbrugsskole will travel to Canada, touring Alberta farms for two weeks and then working the remaining four to eight weeks at farms in the Peace region. Completion of the exchange earns students an International Comparative Agriculture Certificate. For more information, contact Kenda Lubeck, college and community relations, (780) 835-6649, toll free at 1-888-999-7882.

Alberta biotechnology conference

The Alberta Biotechnology Association is holding an Alberta biotechnology conference on May 21, 1999 at the Westin Hotel, Edmonton. The meeting will feature three tracks of investor-direct presentations by emerging Canadian drug and biotechnology companies plus one track of technical presentations addressing innovative advances in cancer drug research. Over 60 companies are expected to participate. Registration fee for the first person from a company is $400. Additional participants from the same company register for $300. Registration information is available from Bern Philip, director biotechnology, Alberta Economic Development, (780) 427-6614 or e-mail <bern.philip@gov.ab.ca>

1999 reduced tillage events

The Alberta Reduced Tillage Initiative (ARTI) sponsors and participates in many events each year. The events are educational and informative and promote a greater understanding of direct seeding practices, field diagnostics and reduced tillage advantages. Some events for June include:

- direct seeding diagnostics schools in High River, Bow Island and Lethbridge;
- Red Deer's direct seeding day – weed control, on June 28; and,
- a winter cereal tour in Irma on June 23.

For more information, contact Peter Gamache, ARTI manager, (780) 427-3361. The ARTI event list can be viewed on-line at <http://paridss.usask.ca/consgroups/arti/index.htm>

Website correction for CABIDF

The website address for the Canada Alberta Beef Industry Development Fund (CABIDF) was incorrectly listed in the April 26, 1999 Agri-News. The correct address is:

<http://www.cattle.ca/Prov_Assoc/Acc/CABIDF/index.html>

Agri-News

May 17, 1999

National Sun Awareness Week

May 17 to 22, 1999 is National Sun Awareness Week. Whether working or playing in the sunshine – when it comes to sun protection the best advice is wear protective clothing and add a hat and some sunscreen.

"When outdoors in spring and summer between 11:00 a.m. and 4:00 p.m., either seek shade or cover-up with protective clothing, a wide brimmed hat, sunscreen and sunglasses," says Eric Jones, farm safety representative with Alberta Agriculture, Food and Rural Development. "Covering up is always recommended when people are working out in the sun or are exposed to sun. Protective clothing including long sleeved shirts and a hat along with some sunscreen of at least a sun protection factor of 15 (SPF 15) is recommended. Minimizing sun damage to your skin is an important step for skin cancer prevention."

Sun damage to skin is cumulative. Any change in skin colour, tanning and burning, indicates that your skin has been damaged by exposure to UVB and UVA rays from the sun.

"Skin cancer is the most common type of cancer," adds Ellen Murphy, scientific information officer with the Alberta Cancer Board, Calgary. "In 1996, there were 337 new cases of melanoma skin cancers recorded in the Alberta Cancer Registry. In Alberta this year, it is estimated that there will be over 400 new cases of malignant melanoma."

Non-melanoma skin cancers (basal cell and squamous cell) are not usually included in cancer incidence statistics. They are under-reported in cancer registries because they are not typically life threatening and are usually successfully treated in doctors' offices without a pathology review. Also, in non-melanoma skin cancer, the cancer registry only records the first case diagnosed within an individual. When these numbers are included, the statistics soar to over 4,300 new cases of skin cancer diagnosed each year in Alberta.

"Most skin cancers can be prevented by protection from the sun's ultraviolet (UV) rays. This is why wearing protective clothing when working in the 'heat-of-the-day' just makes good sense," says Jones. "Also, about 80 per cent of a person's lifetime exposure to the sun's harmful UV rays occurs before age 18, so children are especially in need of protection from the sun. One sunburn in childhood can double the risk of developing skin cancer later in life. Infants under one year-of-

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Alberta
AGRICULTURE, FOOD AND RURAL DEVELOPMENT

age have very delicate skin and should be kept out of direct sunlight. Caregivers should remember that sunscreens are not recommended for infants under 6 months."

A wide range of fabrics have been tested for their ability to block UVR and have SPF ratings. University of Alberta research shows that some polyester in fabric provides slightly more protection than 100 per cent cotton; tightly woven fabrics increase protection; darker colored fabrics absorb more UVR and are more protective; heavier fabrics provide higher SPF ratings; several layers of lightweight fabric increase protection; and dry fabrics are generally one third more protective than wet fabrics.

"Alberta's farmers and ranchers should take note of Environment Canada's daily UV index and, because they are more likely to be outside during the peak sunshine hours, dress accordingly. The UV index is often mentioned on local radio stations as part of their weather forecast," says Jones. "When the UV index is high (7-9), as often experienced in July and August, a wide brimmed hat, long sleeved tightly woven shirt, pants and a generous application of sunscreen are definitely called for to prevent skin damage."

Skin cancer can be prevented. Additional information can be obtained from the Alberta Cancer Board (403 229-8017), the Farm Safety Program of Alberta Agriculture, Food and Rural Development, your local pharmacist, the Canadian Dermatology Association or the National Call Centre for the Canadian Cancer Society at 1-888-939-3333.

Contact: Eric Jones
(403) 427-4231
Ellen Murphy
(403) 220-8017

Healthy Living with Sunshine

The Alberta Cancer Board, together with the Canadian Cancer Society and Environment Canada, produced an interactive computer program called ***Healthy Living with Sunshine*** on the sun's UV rays and skin protection.

"In 1994, this colourful kiosk visited 28 locations throughout Alberta," says Ellen Murphy, scientific information officer with the Alberta Cancer Board, Calgary. "An on-line survey collected data from more than 1,700 users. Of those who responded to a question about receiving new information, 72 per cent reported that they had learned something new."

Although the program was intended to reach 18 to 39 year-olds, most of the users were under 15. As a result, an expanded CD-ROM version for students from grades 4 to 6 was produced.

"In addition to information on ultraviolet radiation, the program focuses on the ozone layer, skin health and ecosystem responses to sunlight," adds Murphy. "Students have fun learning about the relationship between human health and the environment and how they can take action to protect their skin and help the ozone layer."

This innovative software was picked up nationally and a bilingual version was distributed to all schools in Alberta as well as school boards throughout Canada.

For more information, contact Ellen Murphy, Alberta Cancer Board, #382, 3330 Hospital Dr. N.W., Calgary, AB T2N 4N1 or e-mail <ellenmu@cancerboard.ab.ca>

Contact: Ellen Murphy
(403) 220-8017

Sun safety knowledge

What do we know about sun safety knowledge and behaviour? The first national survey of Canadian's sun exposure and protective behaviours was conducted in 1996. Selected findings are summarized as follows:

- more than 50 per cent of Canadians do not adequately protect themselves from the sun, despite the fact that 80 per cent of those surveyed know when and how they should protect themselves;
- the primary reasons cited for not practising sun safety were: forgot (63 %); found it inconvenient to do so (47 %); not concerned about getting too much sun (29 %);
- children have the greatest summer sun exposure of all age groups;
- children also have the highest sunscreen use, but over half of them will sunburn at least once during the summer;
- children over five years-of-age need more education on avoiding the mid-day sun and seeking shade;
- both males and females in the 15 to 24 year-old age group have a large amount of sun exposure, the highest proportion of burns and a lower use of protection. About 20 per cent of people in this age group actively seek a tan;
- more than half of Canadian adults get at least one sunburn during the summer.

More details on the **1996 Canadian National Survey on Sun Exposure & Protective Behaviours** are reported in *Cancer Prevention and Control*, Vol. 2, No. 3.

For more information, contact Ellen Murphy, Alberta Cancer Board, #382, 3330 Hospital Dr. N.W., Calgary, AB T2N 4N1 or e-mail <ellenmu@cancerboard.ab.ca>

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Organic matter – matters

A recent paper published by Con Cambel and others (*Better Crops*/Vol. 82 (1998, No.4) warned that no till systems could lose organic matter if proper fertility was not maintained.

"Maximizing organic matter is an important practice in all farming systems, including no-till," says Grant Nelson P.Ag, Alberta Reduced Tillage Initiative (ARTI), Stettler. "The study conducted by Cambel compared response to fertilizer of soils on the black chernozemic clay soils near Indian Head Saskatchewan. Treatments considered included: fallow-wheat, fallow-wheat-wheat and continuous wheat. The rotations received only one tillage treatment in the spring, prior to seeding from 1957 to 1990 and were no-till seeded after that time."

After pre-seeding tillage stopped in 1990, more fertilizer was required to meet soil test fertilizer recommendations. The reason for this was reduced stirring of the soil, reducing mineralization of nitrogen to make it available for plants.

"Because there's less nitrogen released in non-tilled fallow systems (chemical fallow) this study found a greater demand for nitrogen in the stubble crop year of fallow than for continuous wheat treatments," continues Nelson. "The study also found organic matter declined because non-fertilized treatments had lower yields. Less crop matter reduced the amount of crop residue could be broken down into organic matter."

The authors of this paper had expected to find an increase in organic matter due to increased moisture resulting in greater yields. Increased biological activity in no till soil due to increased moisture may cause increased breakdown of residue, as well as more nitrogen being tied up in the living component of the soil.

Nelson adds, "Two important points can be taken from this work. First, when tillage is reduced, consider compensating slower nutrient break down with increased fertilizer inputs. Second, consider adding components to the rotation that will increase residues and soil nitrogen. Wheat is a crop that can take a fair bit from the soil without returning much organic matter through its root system. Legumes and forage crops have been shown to build soil and increase organic matter. The combined advantages of reduced tillage and diverse rotation will go a long way towards bigger crops and better soil tilth."

Contact: Grant Nelson P.Ag
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Insect I.D. program

An easy-to-use CD-Rom program, designed to help producers identify the major insect pests of cereal and oilseed crops in Western Canada, is now available. Producers who want to improve their insect identification management and agronomists who provide scouting services can benefit from having this diagnostic program at their fingertips

"The ***Insect I.D. Program*** was developed to provide farmers and the people involved in the agriculture industry a system for identifying major insect pests common to the Prairies says Mike Dolinski, entomology and rat control specialist with Alberta Agriculture, Food and Rural Development. "The program was prepared by entomologists. The 25 major insect pests of cereal and oilseed crops are included in the database."

The CD-Rom features photographs, video and text. The system identifies insect pests based on the users answers to four questions: What is the crop? What stage of growth is it at? What colour is the insect pest (if found)? What type of damage is seen?

"In many cases it is difficult to have an insect identified in a hurry when an insect infestation or damage is noticed," says Dolinski. "This CD allows anyone to identify the likely pest in their crop and provides basic information on biology, distribution, economic thresholds and video-clips that in many cases help in identification and use of proper sampling techniques for the insect."

The program will help lead producers to the identity of the insect and assist them in being able to identify all the common insects of major concern to cereal and oilseed growers in Alberta.

"The CD also has a 'gallery' of insects so, when in doubt, farmers can simply scan the photographs and pick out the insect that looks most like the insect causing the problem. The CD does not include sunflower pests nor does it include beneficial insects," adds Dolinski. "As part of the efforts to put useful production tools in the hands of the agri- business in Alberta, this CD will be upgraded in the future to include insects on special crops, forages and also beneficial insects."

The minimum system requirements to run this CD-Rom are: *Windows 95/98* • 4x CD Rom • 50 mg of free hard drive space • *Pentium 133 PC* • 16 MB Ram • *Soundblaster 16* or equivalent.

The ***Insect I.D. Program, Cereal and Oilseed crops*** CD-Rom was designed to be very user-friendly by a producers and entomologist who aren't necessarily computer friendly. Cost of the program is $30 (plus GST). Please add $2 (plus GST) per order for shipping and handling. Cheques, money orders, VISA and MasterCard are accepted. The program is available for purchase from the Alberta Agriculture

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Publications Office, 7000 - 113 Street, Edmonton, Alberta T6H 5T6 or by calling toll-free 1-800-292-5697.

Contact: Mike Dolinski
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Alberta welcomes U.S. cattle trade ruling

The Government of Alberta expressed satisfaction in the preliminary decision by the United States Department of Commerce (DOC) not to impose provisional countervailing duties on Canadian cattle shipments to the United States. In its preliminary determination, although the DOC found that a small number of government programs may be countervailable, the estimated subsidy level was almost negligible.

"Although this is only a preliminary determination, we're satisfied with the overall outcome," says Ed Stelmach, Minister of Agriculture, Food and Rural Development. "This decision confirms what we've said along. Alberta cattle are not being unfairly subsidized – plain and simple."

The countervail investigation will still continue, with the DOC making a final subsidy determination later this fall. This is one of two trade cases brought against Canada by the Ranchers-Cattlemen Action Legal Foundation (R-CALF), a coalition of U.S. ranchers. A preliminary determination on the second trade action, an anti-dumping investigation, is expected in late June, 1999.

"Alberta will continue to work closely with the cattle industry, other provinces and the federal government as this investigation proceeds," says Stelmach. "This case is far from over. It has required a lot of manpower and financial resources to respond to this trade action by R-CALF. But, we are confident that, in the end, we will clearly show that Canadian cattle are traded fairly."

"This is a long and complicated investigation, and we're pleased that this ruling does not adversely affect Alberta cattle exporters," says Dave Hancock, Minister of Intergovernmental and Aboriginal Affairs. "We will continue to defend our programs. We remain committed to making full use of the review procedures in the North American Free Trade Agreement (NAFTA) and the World Trade Organization (WTO) if necessary."

Alberta's cattle industry would be the most affected by an unfavourable ruling. The province maintains the largest cattle herd in the country and accounts for almost two-thirds of Canada's total cattle slaughtering activity. In 1998, Alberta exported 574,000 head of cattle to the U.S. (excluding pure-bred breeding cattle) with a value of $694 million.

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Crops help you breathe

One acre of Ontario corn produces enough oxygen for 130 people, states an article in *Furrow* magazine. In addition, that acre also consumes 10 tons of carbon dioxide. Much of that carbon ends up in the corn stalks which then enriches the soil with organic matter.

"Plants do an excellent job of bringing carbon released into the air back to the soil," says Gordon Frank, crop specialist with Alberta Agriculture, Food and Rural Development, Brooks. "In the Eastern Irrigation District of Alberta, about 300,000 acres are irrigated. If the average oxygen production is estimated at 2/3 of Ontario corn, then each acre provides oxygen for 86 people. The total supported in this one production area in the province is about 25 million people, and this estimate doesn't even count the other 1.2 million dryland crop and rangeland acres in the County of Newell, in southern Alberta."

What about carbon dioxide absorption? At 6.6 tons absorbed per acre, the resulting carbon from over 700,000 litres of burned gasoline is absorbed, an impressive amount.

"In Alberta, more producers are also engaging in direct seeding," adds Frank. "Direct seeding implies zero tillage.

As a result, more carbon stays in the soil and eventually becomes very stable humus. Direct seeding also reduces tractor hours to less than half of normal and that means fuel use drops significantly, which also reduces carbon dioxide production, a win/win situation."

The recent Kyoto Agreement clearly pointed to the need to reduce emissions. The efficiency and high production of today's agriculture makes for a better environment. Research into even more efficient farming, environmentally sustainable agriculture practices, pest resistant crops that reduce the need for pesticides, stronger and more vigorous seed varieties and many other technological advancements are continually being worked on.

Contact: Gordon Frank
(403) 362-1212

4-H goes to the mats for tire recycling

Alberta's 4-H Program, in partnership with the Tire Recycling Management Association of Alberta (TRMA), announce a new pilot project in support of young Albertans.

The TRMA is supplying 75 anti-fatigue rubber mats, made from recycled tires, for the temporary surfacing of show rings at 4-H livestock events. The mats will be transported from location to location to benefit as many 4-H Clubs as possible.

"The mats are a fine example of the ingenuity of Albertans. This forward thinking is an inspiration to Alberta's youth," says Carol Sullivan, provincial 4-H media & marketing specialist with Alberta Agriculture, Food and Rural Development. "This project also allows 4-H members the opportunity to understand and experience first-hand the benefits of recycling."

Molded from rubber crumb (processed scrap tires), the innovative mats provide a superior floor surface for show rings and a much more comfortable, and a less tiring surface for livestock than traditional surfaces such as dirt or wood.

Other favourable characteristics of the rubber crumb mats include cleanliness; durability; ease of installation, removal, transportation and storage; and their reusability.

"The Tire Recycling Association of Alberta is pleased to be chosen by Alberta's 4-H Program as a partner," said Ken Albrecht, Chairman of the TRMA. "Like 4-H, the TRMA is committed to supporting Alberta's youth. In this small way, the TRMA is able to assist 4-H to help young Albertans shape the future in a responsible way."

The project, which will be tested in the northeast 4-H region, spanning from the Northern Alberta/Northwest Territories border to Wainwright in East Central Alberta, is proving to be very popular.

"We've received multiple bookings for use of the trailer and mats," says Sullivan. "The 4-H'ers are excited about this opportunity to highlight their ongoing commitment to environmental initiatives, while also using a floor surface which so directly influences the energy level of their livestock."

"Albertans recycle tires," adds Albrecht. "And, those tires are being turned into new products. We're proud to have this opportunity to showcase the achievements of Alberta's tire recycling industry through this cooperative endeavour with 4-H."

Contact: *Terry Robinson* — *(780) 990-1111* — *Toll free: 1-888-999-8762*
Carol Sullivan — *(780) 422-4H4H (4444)*

Alberta 4-H teen receives Premier's Award

On May 3, 1999, Ed Stelmach, the Minister of Agriculture, Food and Rural Development announced that Andrew Ormberg, an 18-year old high school student from Rimbey is the 1999 recipient of the Alberta 4-H program's highest honour. Ormberg was chosen as the Premier's Award winner from 141 of the province's top 4-H members who have just wrapped up a weekend of personal development and group interaction.

During the annual Alberta 4-H Selections program in Olds from April 30 - May 3, delegates took part in activities designed to improve leadership and life skills. They had the opportunity to prepare for the transition year 2000 and were challenged to reflect on their strengths and weaknesses.

Ormberg, thrilled to be named as the 36th Premier's Award recipient, is excited about the upcoming year, saying, "4-H has been an amazing experience! I look forward to travelling across the province promoting this awesome program."

For the last eight years, Ormberg has been an active member of the Rimbey 4-H club. Along with holding executive positions in his club, he takes part in various regional and provincial 4-H activities. "Now I have the opportunity to put my public speaking and leadership skills into practice as I meet with younger members," he adds.

Gary Severtson, MLA Innisfail-Sylvan Lake, presented Ormberg with the award trophy on behalf of Premier Ralph Klein and the Government of Alberta. In addition, Severtson extended greetings and congratulations to the other participants and award recipients. The sponsors of the Selections program, Lammle's Western Wear, Agriculture and Agri-Food Canada and Alberta Agriculture, Food and Rural Development were also recognized.

"4-H gives youth the edge to compete in today's global marketplace," says Stelmach. "4-H'ers are our future leaders in the agriculture and food industry. To take 141 of the best and then to choose the 'best of the best' must have been a difficult decision. Congratulations to all!"

Ormberg will officially accept his award from Premier Klein at a later date, succeeding Vanessa Belair of Fort Saskatchewan, the recipient of the 1998 Premier's Award

In addition to receiving the Premier's Award, as well as meeting the Premier, Ormberg becomes an Ambassador. He will promote 4-H, along with 13 other 4-H members who were chosen at Selections as 4-H Ambassadors for their leadership, communication and personal development skills.

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Skin Cancer – early detection

One of the most important message in preventing skin cancer is to see your doctor about any changes in your skin. Remember the A, B, C, D's and look for spots that show:

- **Asymmetry: one half does not match the other**
- **Border: scalloped or indistinct, faint edges**
- **Colour: varied shades of brown, black, blue or red**
- **Diameter: larger than a pencil eraser (6mm)**

Most skin cancers are curable if treated early.

Thickeners, stabilizers and texture modifiers

The Canadian Institute of Food Science and Technology is presenting a one-day workshop on Formulating with Thickeners, Stabilizers and Texture Modifying Ingredients on June 3, 1999 at the Greenwood Inn Conference Centre, Edmonton. There are few food products that do not contain a starch, gum or pectin. These provide thickening, gelling, suspending, emulsifying, stabilizing or film forming properties. This workshop will provide information to help processors choose the ingredient best suited to the application, how to use them and their properties such as freeze thaw stability and resistance to high temperatures. The workshop is targeted for those involved in product development in dairy, meat, bakery, beverage, snack foods, jams and jellies, soups, sauces or condiments. Cost of the workshop before May 21 is: CIFST members - $50; students - $25; non-members - $60. After May 21, the registration fee is: CIFST members - $65; students - $35; non-members - $75. For more information, contact Murray Fierheller at the Food Processing Development Centre, (780) 980-4863, Leduc or e-mail <murray.fierheller@agric.gov.ab.ca>.

Southern Alberta soil and crop diagnostic field school

The Southern Alberta Soil & Crop Diagnostic Field School will be held from June 21 to July 7, 1999 at the Lethbridge Research Centre, south of the main building. It is organized and hosted by Alberta Agriculture, Food and Rural Development and Agriculture and Agri-Food Canada. This year, the field school will focus on soil and agronomic production issues of a number of special crops. These include: potatoes, sugar beets, peas, beans, lentils, chickpeas and mustard. A number of days are booked by private industry and will focus on specific crops. The open days for the public are: July 5, featuring mustard, lentils, chickpeas and peas for dryland crops; and July 6, for sugar beets, dry beans and potatoes for irrigated crops. During each day of the field school, tour groups will gather at the large tent at 8:00 a.m. with the tours starting promptly at 8:30 a.m. Lunch and refreshments are provided on site. The tours end at 4:00 p.m. Cost of the program is $175 per person for industry agronomists and $100 per person for farmers. The cost for farmers is being subsidized by the Farming For the Future On-Farm Demonstration program. Cheques and money orders should be made payable to Farming For the Future Research Trust Fund. Send payment by June 11, 1999 to: Diagnostic Field School, c/o Terry Sheen, Alberta Agriculture, Food and Rural Development, Agriculture Centre, Bag 3014, Lethbridge, AB T1J 4C7.

Agri-News

May 24, 1999

Tips for healthy soil and crops

Much is to be said for reduced tillage systems in regards to protecting your soil and maximizing soil tilth. Looking at the consequences of our farming activities on soil nutrients and how we can take actions to maximize soil tilth and health is a useful exercise for all farmers.

An article by Con Campbell and others, published in *Better Crops*/Vol. 82 (1998, No. 4), says that increased fertilizer inputs were required to prevent the loss of organic matter in direct seeded systems. Increased biological activity and crop residue breakdown in these higher moisture systems can cause a problem if nitrogen and other macro nutrients are not supplied.

"With no till and reduced tillage systems more crop residues and nutrients will accumulate near the soil surface," says Grant Nelson, P.Ag, Alberta Reduced Tillage Initiative (ARTI), Stettler. "An exception to this rule may be found with legumes which encourage nitrogen production throughout the soil profile."

Jeff Schoenau, from the department of soil science at the University of Saskatchewan, cautions some nitrogen may form ammonia near the soil surface and be lost as gas.

On the other hand, incorporating straw can cause rapid breakdown and mineralization of crop residues. Nitrogen can be lost through leaching, soil erosion or simply move too deep in the soil profile to be of use to plants. Jowkin and Schoenau, 1997, found nitrogen availability was not greatly effected in the initial years of no-till farming systems for spring wheat in the Brown soil zone.

"With crop residues near the surface, there is concern that non-mobile nutrients such as sulfur and phosphorous will not reach the root zone," says Nelson. "Gares and Schoenau, 1994, found close to 50 per cent of the phosphorous in surface straw was in a water soluble form available to the crop over a relatively short period of time.

"Earth worms and other soil organisms go to the soil surface and draw crop residues under the surface; this should make the remaining nutrients available over time in a reduced tillage system. Because no-till and reduced tillage systems slow initial movement of nutrients, placing fertilizer with seed and double shooting or banding is recommended for maximum yield potential."

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Alberta AGRICULTURE, FOOD AND RURAL DEVELOPMENT

Rates of organic matter breakdown are slower in reduced tillage systems. One way of viewing straw and organic matter in soil is to think of the organic matter as wood fuel and the soil a wood burning stove.

"When wood is thrown in a stove, it burns quickly releasing the chemicals in the wood as fire," explains Nelson. "If you bury the straw in soil, it gets burned up quickly releasing plant nutrients rapidly. The catch is, plants, like all living things, only require certain levels of nutrients to grow.

"Burying crop residues may cause nutrient breakdown quicker than the crop can use the plant food. When crop residues are not placed in the furnace, the soil, all at once, nutrients can feed the crop gradually. The fuel or plant food stored in crop residues gets fed to crops gradually resulting in more efficient use of nutrients. Grains fed nitrogen throughout the growing season will produce higher levels of protein in the kernel. With increase premiums for higher grain protein, reduced tillage pays dividends."

Break down of crop residues is not a simple issue. Soils vary in levels of moisture, texture and slope. Crop residues break down at different rates and release different nutrients.

"Understanding basic agronomy is essential to maximizing yields," adds Nelson. "If seed is not placed into a firm seed bed and packed, germination and emergence will be poor or delayed. Weed competition will also eliminate the benefits of good residue management. Poor spreading of crop residues will cause uneven emergence, weed problems and hair pinning of disk seeders."

Wayne Lindwall, who has practised conservation tillage in the Lethbridge area for 20 years, made some important comments on this subject. He says, "In most situations, the crop rotation has a greater impact on weed control problems than the tillage system. Most published research to date indicates that crop rotation and weather have greater impact on pest problems, such as weeds, disease and insects, than tillage systems."

These thoughts reflect the need for producers to consider diversifying crop rotations. Native grass and tree stands that were initially present on land now farmed contained many species in a relatively small area. The soil being farmed was built by these native systems. Using a diverse crop rotation that takes advantage of the principles of the native system should help build and maintain the soil for now and the future.

Contact: Grant Nelson
(403) 742-7546

Greenhouse tomatoes, ready for summer

It's time to review management practices that will ensure tomato plants are ready for summer. Last year in May, growers reported sudden wilting of plants and tops turning woody, thin and spindly with poor cluster set.

"Growers need to pay attention to their crops at this time of year," says Dr. Mohyuddin Mirza, greenhouse crop specialist with Alberta Agriculture, Food and Rural Development, Edmonton. "Many tomato crops are overloaded. In late March, the fruit count averaged 30 fruits per plant. That is a very heavy load, and can reduce the transfer of food to the roots. This fruit count is the same as last year. Root health can be further compromised if water logged conditions are prevailing, high sodium is accumulating and electrical conductivity is consistently over 4.0 millimhos."

Growers should aim for these targets:

- maintain a fruit load between 22 and 25 fruits. Reduce the fruit load to between 18 to 20 if the plant tops are thinning. This fruit load is recommended for varieties with an average fruit weight of over 200 grams;
- remove the fruit as quickly as possible. A lot of energy is used for fruit ripening on the vine at the expense of supplying energy to the roots;
- practice cluster pruning beyond the seventh cluster. If there are up to seven fruits on some clusters, reduce the number to four or five;
- target a minimum of 20 to 25 leaves per plant. Count down from the flowering truss; and
- watch for boron in the tissue. It should be between 30 and 80 parts per million. If the heads are brittle and fruit is dropping, then suspect boron deficiency.

Contact: Mohyuddin Mirza
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Evaluation of BMPs to protect water quality

Beneficial Management Practices (BMP's) have long been used as tools for reducing agricultural impacts on the environment. But, evaluation of the various BMP's for protecting surface water quality in Alberta is often limited to qualitative observation. Researchers from Alberta Agriculture, Food, and Rural Development and the University of Alberta are trying to change this by measuring changes in surface water quality after the implementation of BMP's at two operations in central Alberta.

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"Previous research on surface water quality in the Haynes Creek watershed near Lacombe is able to give us two years of 'before' data," says Dr David Chanasyk of the University of Alberta. "By continuing to monitor sites where the operators are adopting BMP's this season, we'll be able to get a corresponding 'after' picture, and then quantitatively measure the improvement in water quality."

The Alberta Agricultural Research Institute (AARI) approved the project in February 1999 and awarded funding for the first year of the three-year study. The project will monitor one cropping site, and one cow/calf operation. "We were very fortunate with respect to the response from cooperators from the first Haynes Creek study," says Jamie Wuite, water quality biologist with Alberta Agriculture, and project manager for this study. "A number of the operators who took part in the first study wanted to return, but there were only resources to monitor two this year. There may be an opportunity to add more operations to the study next year."

Water sampling and flow monitoring began with the onset of spring melt this year. Samples will be taken between one and four times a day depending on flow levels during spring melt, and will occur daily during any summer storm event which produces surface runoff. Samples from both sites are being analysed for nutrients and routine water chemistry.

The samples from the cow/calf operation will also be analysed for fecal coliforms, and the cropping samples for pesticides.

"Each operator is faced with choosing the management tools for their individual operation that will balance production with environmental sustainability," says Wuite. "Any quantitative evaluation of these tools that can be provided will help them make the best decision."

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Club membership... it really does pay!

Marketing and production clubs have long been part of the agricultural landscape in Alberta. Though typically independent in nature, producers do band together when there's good reason. In the case of marketing and production clubs, the incentive is shared interests and potential economic gain. Clubs are a way for producers to educate themselves about marketing and production, tap the knowledge and experience of their fellow producers, and connect socially.

"The University of Alberta, in partnership with Alberta Agriculture, Food and Rural Development, has just completed a project called *Analysis of Determinants of Agricultural Marketing and Production Clubs*," says Cindy Bishop, rural development specialist - organizations, with Alberta Agriculture, Food and Rural Development. "The Farm Business Management Program (FBMP) funded the research For the first time a close look is being taken at what makes these clubs tick."

Clubs across Alberta were evaluated on how they establish, operate and maintain successful organizations. While marketing and production clubs look promising, their ultimate success depends on several key factors

- the **structure** of the club is paramount. Clubs tend to function more effectively when there are 10 - 15 members A club can focus its efforts when it is well organized with regular meetings, agendas, and an executive committee;
- **outside resources**, for example, financial support, information or expert speakers, impact on the sustainability of the club;
- in the minds of club members **group discussion, timely delivery of information, and a club lifespan over three years**, are the three most important factors. Opportunities for good discussion can be a real strength. Members feel comfortable about openly expressing their opinions and sharing information about their operations and experiences;
- **goals** feature front and centre. Setting, evaluating and achieving club goals contributes to both club success and member satisfaction. Clubs with written challenging goals have the edge. When goals are achieved, new ones are set;
- clubs require **leaders** who can motivate members, guide them towards achieving goals, and offer new and interesting ideas;
- members must be **active** for the club to succeed. Participation gives the members a sense of ownership and commitment. It ensures that the topics covered or information provided, captures the interest of the group; and.
- many producers join clubs to acquire knowledge and skills that will **increase their income**. While increased income and decreased expenses are significant, they don't stand alone. Other benefits such as reduced risk and increased confidence in making decisions, sit in balance with economic gains.

"It seems that not all marketing and production clubs are created equal," adds Bishop. "While some offer real benefits to their members, others are less effective. The research findings show how to increase the odds of success. This information may be useful and help strengthen other grassroots organizations in Alberta's rural communities."

For more information on this research project contact the Department of Rural Economy, University of Alberta at (780) 492-4596 or Alberta Agriculture, Food and Rural Development (780) 986-8985. Government numbers are toll free by dialing 310-0000 first.

Contact: *Cindy Bishop*
(780) 986-8985

Third annual 4-H Project Fair

4-H members and leaders will want to be in Olds on July 28 to 30, 1999 for Project Fair.

"Project Fair is a three-day event that focuses on homemaking and non-livestock projects," says Andrea Helten, 4-H resource development coordinator with Alberta Agriculture, Food and Rural Development.

Members from across the province can participate in hands-on mini-sessions, a project bowl, bench show, demonstration competition and organized recreation activities such as kickboxing lessons. The event will culminate with a 90 minute goal setting session titled, *Get a Life... Get a Warm, Focused, Happy Life* and will be presented by keynote speakers Anne MacEwan and Jocelyne Smedley from the Motivation Source Inc.

Batik Bandana, Marvelous Monotypes, Dream Keepers, Gifts from the Kitchen, Gifts from the Garden, Recycling with Flair, Woodworking, Ropemaking, Helping Alberta's Endangered Species, Automotive Workshop and Planning Projects for Profit are the various mini-sessions being offered this year.

"Major sponsors of Project Fair include Lammle's Western Wear and United Farmers of Alberta," adds Helten. "The program fee for members is $50 and includes a t-shirt. The program for leaders and parents is $25. Applications should be received at the provincial 4-H office by June 1, 1999."

Members are responsible for their own meals, accommodation and travel costs. Camping and residence packages are available from Olds College.

Program information and application forms are available in the 1999 Provincial 4-H Spring and Summer Program booklet, a regional 4-H specialist or on the Alberta 4-H web site at **<http://www.agric.gov.ab.ca/4h>**

Contact: *Andrea Helten*
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Improved mustard production

Mustard has been a major special crop in western Canada since mustard supplies from Europe were disrupted during World War II. In 1996 and 1997, there were 591,000 and 697,000 acres of mustard grown on the prairies, respectively.

"The three types of mustard grown in Alberta are yellow, brown, and oriental," says Ross McKenzie, soil fertility specialist with Alberta Agriculture, Food and Rural Development, Lethbridge. "Historically, yellow mustard accounts for 37 per cent of production, while oriental and brown mustard account for 35 and 28 per cent of annual production, respectively. It is a cool season crop. It is also considered quite drought tolerant and that makes it well adapted to the brown and dark brown soil areas of the prairies. Recent research studies in Great Britain and Canada have resulted in significant varietal improvement in both agronomic qualities and increased yield."

Unfortunately, there has not been a great deal of agronomic field research with the various new mustard varieties to achieve optimum yield and up-to-date mustard production information is not readily available.

"Fertilizer recommendations for mustard production are from the early 1970's," says McKenzie. "They are general and based on old varieties. New, improved varieties with specific market qualities have been developed since that era and farmers are increasingly aware that historic recommendations are not optimizing yield and quality potential of new cultivars. Top mustard producers consistently apply higher and different rates of fertilizer than what soil testing laboratories recommend."

A new research study is being initiated in Alberta to evaluate new mustard varieties under varying management treatments to assess yield potential and agronomic characteristics in various agro-ecological areas of southern Alberta. This project is intended to provide information by the year 2002 to producers regarding the relative yield and quality potential of different mustard types and varieties.

This study will address several questions for producers, including:

- are the potential yield differences among mustard varieties greater under optimum crop management than indicated in the co-op trials?
- is it more economical to grow yellow, brown or oriental varieties?
- will adding incremental rates of nitrogen fertilizer to different varieties result in incremental yield increase?
- how much pre-banded or seed-placed nitrogen fertilizer is needed to achieve optimum yield and quality?
- how do various nitrogen fertilizer rates affect weed pressure in different mustard varieties?

"The first expected key result of this project is to determine the mustard cultivars that have the highest seed yield, optimum quality potential and best agronomic characteristics for southern Alberta," says McKenzie. "Factors such as weed pressure, disease tolerance, insect populations and crop maturity date will be rated and evaluated for each mustard type under optimum nutrient and cropping management. The second expected result is to determine the effects of different fertilizer treatments on incremental yield increase and quality of each variety. Dryland sites on both fallow and stubble will be conducted in the brown and dark brown soil areas in southern Alberta."

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Research funding for this project is provided by the Alberta Agricultural Research Institute (AARI), Agrium, Agricore, Westco and the Mustard Association.

Contact: *Ross McKenzie*
(403) 381-5842

Agri-News Briefs

Cultivated and wild-crafted medicinal and culinary herbs

A course on cultivated and wild-crafted medicinal and culinary herbs is being held at the Northern Alberta Institute of Technology (NAIT), Continuing Education, on June 11 and 12, 1999. This introductory course examines the practicalities of growing, harvesting, processing and marketing culinary and medicinal herbs for the restaurant and health food industries. Course topics include: the herb and spice industry in Canada; culinary herbs as fresh market produce; culinary herbs dried, packaged and bulk; essential oil extraction tinctures; the business of herbs; field production of fresh culinary herbs; field production of medicinal herbs; wild-crafting culinary and medicinal herbs; and business operations, staff and bookkeeping. Course fee is $175 per person. For more information or to register, contact NAIT at (780) 471-6248, fax (780) 471-8490 or e-mail <**registrar@nait.ab.ca**>

Research reports available

The following research projects have been completed and final reports are available:

- **Optimum time and placement of fertilizer with direct and conventionally seeded winter wheat** – R.H. McKenzie and A. Middleton;
- **Optimizing barley silage production** – R.H. McKenzie, A. Middleton, E. Solberg, J. DeMulder, and H. Najda; and,
- **Dry bean production technology development** – R.H McKenzie, K. Seward, R. Gaudiel, C. Wildschut and B. Lees

For more information or copies of these reports, contact Terry Sheen at 403-381-5126, e-mail <**terry.sheen@agric.gov.ab.ca**>. A fact sheet summarizing recommendations from the bean research project, Agdex # FS142/532-1, ***Nutrient requirements of dry beans in southern Alberta***, is also available at all Alberta Agriculture, Food and Rural Development district offices and from the Publications Office, 7000 - 113 Street, Edmonton, AB T6H 5B6.

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Agri-News

May 31, 1999

Dutch Elm Disease Awareness Week May 31 - June 4

The non-profit Society to Prevent Dutch Elm Disease (STOPDED) and the Alberta Agriculture, Food and Rural Development Dutch Elm Disease Prevention Program have been hard at work keeping Alberta free of the most destructive disease of elm trees known, Dutch elm disease (DED).

"DED has killed millions of elms throughout North America since its introduction in 1930," says Janet Feddes-Calpas, Alberta Agriculture's Dutch Elm Disease program coordinator, Brooks. "The disease is still on the move in the south eastern corner of Saskatchewan and throughout the United States. In 1998 a total of 950 elms were lost to DED in Saskatchewan municipalities and hundreds of thousands more were lost in the native elm tree stands along the rivers. Through an aggressive prevention program, Great Falls, Montana continues to fight the disease and has managed to keep losses down to two to three per cent a year."

In March of 1999, a province-wide elm inventory in all the municipalities was completed in Alberta by STOPDED employees. The condition and size of each elm tree was recorded. It is now known that a total of 205,000 elms valued at $500 million grow in Alberta urban areas. A complete elm inventory supplies the basic information necessary for an effective management program should DED appear in Alberta. The information will also identify areas where more intensive surveillance is necessary due to the number and/or condition of the elm trees.

Municipal elm plantings range from 10 to 50 per cent of the overall tree plantings. Alberta cannot afford to lose a resource that provides so many environmental benefits. In Alberta landscaping, there is a very limited choice of trees, none of which approach the aesthetic beauty or suitability of the elm. Without an on-going, continuous prevention program the entire population of elms in a community can easily be lost within a few short years.

"The week of May 31-June 4, 1999 has been proclaimed Dutch Elm Disease Awareness Week in Alberta by the Honourable Ed Stelmach, Minister of Agriculture," says Calpas. "Albertans are asked to help save our beautiful American elm trees by taking the following DED preventive measures."

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Internet site: www.agric.gov.ab.ca/agrinews Editor e-mail: agrinews@agric.gov.ab.ca

Alberta
AGRICULTURE FOOD AND RURAL DEVELOPMENT

To help prevent DED:

- keep elm trees healthy, vigorous and properly pruned;
- dispose of all elm wood, taking it to the local landfill or, burning, burying or chipping it. Elm wood provides ideal breeding sites for elm bark beetles that spread DED;
- learn how to identify the signs of DED and beetle activity so they can be reported to the DED Hotline nearest to the community. Symptoms usually appear in mid-June to mid-July when the leaves wilt or droop, curl up and become brown. Leaves on trees infected later in the season usually turn yellow and drop prematurely. Leaf symptoms are accompanied by brown staining under the bark. All suspicious elms must be tested in a lab for the presence of the fungus. A confirmed DED tree must be removed immediately to prevent further spread;
- water elms well from April to mid-August. To allow the tree to harden off for the winter, watering should be stopped mid-August followed by a soaking or two before freeze-up;
- remove dead branches and trees which provide beetle habitat. Since elm bark beetles are attracted to fresh tree wounds, pruning should be done between October 1 to March 31 when the beetles are not in their active stage;
- become more involved in the preservation of elm trees and become a STOPDED member.

The DO NOTs in DED prevention:

- don't store elm firewood at any time!
- don't transport elm firewood!
- don't prune elms between April 1st to September 30th!

"DED is a disease caused by a fatal fungus that clogs the elm tree's water conducting system, causing its leaves to wilt and the tree to die, usually within one or two seasons," says Feddes-Calpas. "The fungus which affects all species of elm is primarily spread from one tree to another by two species of insect vectors, the smaller European elm bark beetle (SEEBB), and the native elm bark beetle (NEBB). The beetles are attracted to weak and dying trees, which serve as breeding sites for the beetles. Once the beetles have pupated and turned into adults, they leave the brood gallery and fly to healthy elms to feed, thus transporting the fungus on their bodies from one tree to the next.

"For this reason, it is important that elm firewood not be transported into or within Alberta as the wood may be harboring the bark beetles that carry the deadly DED fungus. Firewood is confiscated at all the Alberta-Montana border crossings. Monitoring for the beetle is done every year throughout the province."

Alberta has been fortunate to remain DED free for many years however, in 1998 one elm tree in Wainwright was confirmed to have disease. The tree was immediately removed and burned. It is believed that firewood brought into the province was the source of infection. In previous years SEEBB have been found in Calgary, Edmonton, St. Albert, Strathcona County, Vauxhall, High River and, for the first time in 1998,... throughout Medicine Hat.

"All the municipalities in the province are encouraged to develop a DED prevention program which involves monitoring for the vectors, DED surveillance, public awareness, firewood control, and pruning of dead wood out of the elms between the dates of October 1 to March 31," says Feddes-Calpas. "A *DED Response Plan* has been completed for the province of Alberta outlining the responsibilities of organizations in the management of DED."

Until there is a cure for DED, prevention remains the most effective form of control. DED can be prevented.

For more information call the provincial hotline (403) 362-1300, or check out the web DED page at **<http://www.agric.gov.ab.ca/pests/diseases/ded/html>**.

Contact: Janet Feddes-Calpas
(403) 362-1337

Y2K capital cost allowance deadline

Time is running short for any business that has Y2K incompatible hardware or software and want to take advantage of Revenue Canada's accelerated capital cost allowance.

"Under this provision, new replacement Y2K hardware and software must be purchased between January 1, 1998 and ***June 30, 1999***," says George Rock, P.Ag, farm management specialist with Alberta Agriculture, Food and Rural Development, Leduc. "Unincorporated business, including most farmers, and corporations not subject to the Large Corporation Tax qualify for a 100 per cent deduction on expenditures up to $50,000 on equipment and programs to become Y2K compliant."

Y2K refers to the year 2000. In past years, to save memory space in computers, the first two digits of the year were not used, for example 1985 was 85. The problem comes when 1999 becomes the year 2000. The computer may read the year 2000 as 1900.

"To assist businesses in coping with this problem, Revenue Canada has instituted the accelerated capital cost allowance," says Rock. "Normally, producers get to write off 15 per cent of a hardware purchase in year one and 30 per cent in year two. The additional deduction of 85 per cent is allowed, in effect giving a 100 per cent write off."

Cont'd on page 3

Other equipment that can be affected besides computers include: motorized farm equipment; barn equipment, such as fans; milking machines; security systems; fire, smoke and heat alarm equipment; and, some office equipment

"To be eligible, the new computer hardware, software and firmware must be Y2K compliant," adds Rock. "Be sure to get this in writing on the bill of sale. The new item must be bought to replace non-compliant equipment or programs. Do not throw away old equipment and programs without documenting that they were farm/business related equipment and that they were not compliant. One option is to bring in a computer consultant and get a letter from the company documenting the information needed."

New purchases must be made BEFORE JUNE 30, 1999 to be eligible.

"Include in your tax return a letter stating that the business is electing to claim the write-off and list the components," concludes Rock. "Be sure to talk to an accountant and get their opinion on the best course of action."

A factsheet, A Year 2000 (Y2K) Audit for the Farm, Agdex 811-1, contains more information on Y2K. It is available at all Alberta Agriculture district offices and at the publications office, 7000 - 113 Street, Edmonton, AB T6H 5T6. The factsheet is also available on the Alberta Agriculture website at: **<http://www.agric.gov.ab.ca/economic/mgmt/y2k/y2k.html>**

Contact: *George Rock*
(780) 986-8985

Soil tilth and moisture conservation

Tilth is the state of aggregation of soil and its condition for supporting plant growth. Cultivation is used for many purposes in conventional farming and reduced tillage systems. Moisture conservation has often been stated as one of the main potential benefits of tillage.

"Back in the early 20th century dust mulch was used as a unique way to hold soil moisture in the soil," says Grant Nelson, agronomist with Alberta Reduced Tillage Initiative (ARTI), Stettler. "The principle was to work soil into a fine powder, providing an insulating barrier between the moist soil below and air which would otherwise cause evaporation. This dust mulch was believed to be a barrier to movement of water through the soil, stopping soil evaporation. The principal was sound, however, this practice increases soil erodability and was one of the key factors leading to soil loss and dust blizzards experienced during the 'Dirty Thirties'."

Tilled soil will often crust. The crust may hold in moisture but also prevents seed from emerging. Reduced tillage systems leave soil with more organic matter on the surface and better tilth. This results in fewer problems with emergence

Allan Howard, soil moisture specialist with Alberta Agriculture Food and Rural Development, Lethbridge, says, "If soil is left un-tilled, increased soil tilth will prevent crusting and it should not need to be worked. The surface residue will prevent exposure to air and insulate similar to the dust mulches used in the 1920's; the difference being those crop residues protect the soil and encourage nutrient cycling."

Tom Goddard, soil conservation specialist for Alberta Agriculture, Edmonton says, "A dust mulch will seal the surface so there isn't moisture loss. This is fine, as long as there isn't wind or water erosion.

"If wind is a factor, it will move dust mulch to different areas of the field resulting in some areas having twice or three times the thickness of mulch and zero mulch in other areas.

The end result is increased evaporation where mulch is lost and a dry seed bed where the dry mulch layer is deposited. Soil absorbed herbicides moved with eroded soil can cause problems with crop emergence if the seeding depth does not go below the deposition layer."

Another danger of the dust mulch system is that water erosion could occur. In a spring rain storm there won't be the infiltration capacity that was present before tillage. This results in more run off and an uneven distribution of water in the field. Water will run to the lower areas of the field, leaving the higher, exposed soils dry and prone to further erosion by wind. Worked soil becomes pulverized, breaking down the soil aggregates that hold it together.

"When water flows over a dust mulch after pulverizing the soil aggregates, soil particles are more easily picked up and held in the water flow," adds Goddard. "This increases the susceptibility of the soil to water erosion and the amount of soil that is moved."

Dust mulching increases the risk of redistribution of soil on the field from both wind and water erosion. The term dust mulch has not been used for many years. In light of dust storms and wind erosion seen on some parts of the prairies in recent years, the concept may be practiced to some degree, with the same disastrous results.

"The theory of leaving stubble up is that it reduces the wind velocity at the soil surface, reducing evaporation," says Goddard. "This creates a boundary layer of air near the soil surface that is not moving. Direct seeding also protects the seedlings, because the young plants have the benefit of the still and moister air in the boundary layer."

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In contrast, young seedlings are often sand blasted by wind in soils that don't have enough crop residues to prevent soil from blowing before the crop canopy emerges. In similar circumstances having a stubble barrier would protect the seedlings and preserve soil moisture, reducing the likelihood of soil particles destroying the seedlings, requiring re-seeding.

"In areas of Alberta with deep, clay soils such as Acadia Valley, cultivation has been used to cover the cracks which form when the clay soils contract following a dry period," says Nelson. "These cracks can be as deep as six feet and three or four inches across. The concern is to prevent air from reaching subsoil moisture reserves in a part of the province where four inches of rain is common over the growing season. The problem is that excess cultivation of clay soil can lead to severe wind erosion problems. The soil forms tiny ball-shaped aggregates, almost like sand, that blow freely in the wind. The common term for this problem in the Acadia valley area is 'loose top'."

Some farmers have been successfully using reduced tillage and direct seeding on these soils. "The cracks may be there, but they'll be covered with a layer of mulch; mulch that accumulated over years of direct seeding," adds Goddard. "This mulch achieves the same purpose as the dust mulch created by tillage in sealing the cracks and preventing soil moisture loss."

Jarod Kuhn of Acadia Valley, Alberta, has been farming on clay soils with his family for most of his life. Over the last eight years they have been using a direct seeded, continuous cropping system. He commented that cracks still exist, residue has been fairly slow to build up on some of these soils and mulch is reduced after peas or oil seeds which leave less residues. Although changes are not always rapid in this part of Alberta, the Kuhns have noticed benefits to using direct seeding. "Our land is definitely mellowing on the continuous crop on the clay," says Kuhn.

"A concern with direct seeded soils is nitrogen may accumulate deep in the soil profile, beyond the root zone," says Nelson. "Part of the reason for this problem is direct seeded systems increase the presence of continuous pores in the soil. These allow moisture and nutrients to be carried down beyond the reach of plants."

Producers need to find crops that can use nutrients before they are lost from the system. Rotation with deep-rooted crops is one solution. Alfalfa can intercept nutrients and use them effectively due to the crop's deep root system and high nitrogen demands. Moving toward continuous cropping, if sufficient moisture is available, and intensifying crop rotations will also guarantee better use of moisture and nutrients in direct seeding systems.

Contact: Grant Nelson
(403) 948-8503

Fall Seeded Crop School 1999

Fall seeded crops are gaining in popularity in Alberta. The Fall Seeded Crop School is designed to show producers the agronomic do's and don't of the crops. The school was first held in June of 1998 and demand exceeded space.

"This year's school will be held June 23 and 24 at the University of Alberta Research Farm at Ellerslie in southwest Edmonton," says Peter Gamache, manager of the Alberta Reduced Tillage Initiative (ARTI), Edmonton. "The two, one-day sessions are identical and capacity is limited to 60 participants for each day."

Some of the fall-seeded crops being discussed are: spring and winter wheat; spring and winter triticale; fall rye; canola; barley and hulless barley. Topics covered will include: fertilizer management, seeding rates/dates/depth, crop staging, seed coating technology, new varieties, weeds, insects and diseases. The crops were seeded using direct and conventional seeding.

The school is sponsored by Alberta Agriculture, Food and Rural Development - Agronomy Unit, Ducks Unlimited Canada, ARTI, Alberta Winter Wheat Producers Commission and the University of Alberta.

The school runs for approximately six hours with breaks for coffee and lunch. Reservations are on a first come basis and there is no charge. More information on the Fall Seeded Crop School or to register, contact Michele Dannish, agronomy unit, Alberta Agriculture (780) 422-3825, a local Alberta Agriculture crop specialist or an ARTI agronomist.

Contact: Peter Gamache
(780) 427-3361

Late April rains welcome

Alberta's above normal precipitation totals in April ended several months of dry conditions across the province. The provincial average precipitation of 36.7 mm was 9.7 mm above the 1961 to 1990 average of 27.0 mm.

"The southern region received 56.1 mm of precipitation, or 17.6 mm above normal," says Peter Dzikowski, agriculture weather resource specialist with Alberta Agriculture, Food and Rural Development, Edmonton. "This precipitation brought much needed moisture to southern farmland after a very dry winter. Esther reported the largest precipitation departure, 60.1 mm which is 342 per cent above normal. Fort St. John was the driest spot in the province, reporting precipitation amounts of 8.6 mm, about half of normal."

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The provincial average temperature was 1.1 degrees above the 1961 to 1990 average of 4.0 degrees C. The greatest temperature departures were reported in the north eastern, north western and Peace regions, where temperatures were 1.3 to 2.0 degrees above normal. Ballater reported the greatest monthly average temperature departure, 2.3 degrees above normal.

"Temperatures across the province were near normal during the first and second weeks of April," adds Dzikowski. "Temperatures climbed above normal during third week of the April, after which there was a brief return to colder conditions On April 25th, most stations reported temperatures in the mid-20's, which is about 10 degrees above normal for this time of year. The month ended with an abrupt return to cool, wet conditions."

The provincial averages are based on data recorded at 65 Environment Canada climate stations across Alberta. For more information, visit Alberta Agriculture's web page at **<http://www.agric.gov.ab.ca>**

Contact: Peter Dzikowski
(780) 427-3594

Pith necrosis of tomato plants

Greenhouse crops have responded to the recent spring sunshine with increased growth and heavy fruit set.

"The growing season challenges this spring have been the shortness of light," says Jim Calpas, greenhouse crops specialist with Alberta Agriculture, Food and Rural Development's Crop Diversification Centre South (CDCS). "For the most part, growers have successfully managed their crops to set down a solid root system and establish the necessary top-growth to support a high level of production. Tomato crops are vigorous and lush. These are precisely the type of plants most susceptible to pith necrosis. There has already been at least one incident of pith necrosis."

Pith necrosis is caused by the bacterium *Pseudomonas corrugata*. Tomato plants affected by pith necrosis tend to have thick stems and a large canopy. Infected plants may first display a wilting and chlorosis of the upper leaves with associated wilting. Examination of the stems reveals brown to black streaking along the length. Often the streaking begins or ends at a pruning scar. The stems become spongy to the touch and often collapse. Closer examination of affected stems reveals an almost totally disintegrated pith. Once the pith reaches this stage, death of the plant isn't far behind.

"Pith necrosis is a particularly frustrating disease because it takes plants that are in their prime, plants that look like they are in for a good season," says Calpas. "Diseased plants should be removed as soon as possible. They should be carefully placed in a plastic bag and taken to a landfill. Close attention should be paid to adjacent plants, and they should be removed at the first sign of disease."

Not much is known about the life cycle of *Peudomonas corrugata*, but the bacterium is considered to be soil and water borne. It appears to be quite difficult to spread the disease on hands, clothing or pruning tools. The disease is normally noted in spring, is sporadic and generally limited to a few plants. As the season progresses and humidity levels drop in the crop, the disease is usually no longer a problem.

"General control practices for pith necrosis include avoiding conditions that lead to wet plants and luxuriant growth; holding off excessive nitrogen; and, increasing potassium," adds Calpas.

Pith necrosis is a challenge for growers every spring. This spring, especially so.

Contact: Jim Calpas
(403) 362-1312

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Agri-News Briefs

Cultivated and wild-crafted medicinal and culinary herbs course

An introductory course on cultivated and wild-crafted medicinal and culinary herbs is being offered at the Northern Alberta Institute of Technology (NAIT), Edmonton, on June 11 and 12, 1999. The course examines the practicalities of growing, harvesting, processing and marketing culinary and medicinal herbs for the restaurant and health food industries. The fee for this course is $175 and includes lunch both days. For more information or to register, contact NAIT at (780) 471-6248, fax (780) 471-8490 or e-mail <registrar@nait.ab.ca>.

Pasture school

The Western Forage/Beef Group is offering a Pasture School on June 15 to 17, 1999 at the Lacombe Research Centre, Lacombe. Topics covered in the seminar and field sessions include: pasture ecology; grass/legume growth and development; grazing nutrition; pasture plant i.d.; pasture fertility and nutrient cycling; pasture production and sustainability; pasture species; alfalfa grazing; annuals for grazing pasture rejuvenation; pasture assessment and evaluation; and, economics of a grazing operation. Attendance is limited, so early registration is recommended. Registration fee is $280 (plus GST) per person and $200 (plus GST) for each additional person from the same farm/ranch. For more information or to register, contact Cathy Hendrickson at (403) 782-8030, Lacombe, or Grant Lastiwka at (403) 782-8028, Lacombe.

New Biosafety Protocol Website

Canada is one of 130 nations negotiating the Biosafety Protocol, which comes under the auspices of the Convention on Biodiversity. This Protocol would create an international legal regime to ensure that biodiversity is protected as trade in Living Modified Organisms (LMO's) takes place. LMO's are genetically modified products that are still living, e.g. seeds, transgenic animals, live vaccines. To explain to Canadians how such negotiations proceed, one member of the Canadian Delegation on the negotiations has created a website at <**http://www.ecobio.com/biosafety2**>. The website is done with humour, to present the material in an interesting way. For more information, contact: Raphaël Thierrin, ECOBIO Design & Business at (403) 686-3310 or e-mail <**raphael@ecobio.com**>or Greg Wolff with Alberta Agriculture, Food and Rural Development (780) 422-2231, e-mail <**greg.wolff@agric.gov.ab.ca** >. Other related sites of interest include:

- Notes from BSWG6, Cartagena – <**http://www.iisd.ca/linkages/biodiv/bswg6/**>
- Canadian Biodiversity Information Network – <**http://www.cbin.ec.gc.ca/Biodiversity/EN/Default.cfm**>
- Convention on Biodiversity – <**http://www.biodiv.org/**>
- Linkages: a Multimedia Resource for Environment and Development Policy makers – **http://www.iisd.ca/linkages/biodiv.html**>

Web sites that have interesting information on biotechnology in general include:

- Agriculture and Agri-Food Canada's Biotechnology website; <**http://www.agr.ca/biotece.html**>
- Agriculture and Agri-Food Canada's Ag-Biotechnology index; <**http://www.cfia-acia.agr.ca/english/ppc/biotech/bsco.html**>
- Canadian Institute of Biotechnology; <**http://www.biotech.ca/**>
- Food Biotechnology Communications Network; <**http://www.foodbiotech.org/**>
- USDA Biotechnology site; <**http://www.aphis.usda.gov/biotech/**>

Agri-News

June 7, 1999

New Minister no stranger to agriculture

Alberta Agriculture, Food and Rural Development welcome's Ty Lund, MLA for Rocky Mountain House, as the new Agriculture Minister. Lund officially took over the reins on March 26, 1999 from Ed Stelmach, who has moved to the post of Minister of Alberta Infrastructure.

Lund's agricultural background provides him with in-depth knowledge of the industry. As a third generation farmer on the family farm, Lund is no stranger to the trials and triumphs of dealing with the variables of weather and markets that can turn at a moment's notice.

Whether it's pulling a calf at three in the morning or the ins and outs of grain production, Lund has shared the same experiences as those who live and work in rural communities.

Ty Lund has extensive experience on both local and provincial government levels.

He was first elected to the Alberta Legislature in 1989. Lund was re-elected for a second term on June 15, 1993, and for his third term on March 11, 1997. He was appointed Minister of Environmental Protection on October 21, 1994 and was re-appointed to the same position on March 26, 1997.

Over the years, Lund's active involvement in municipal government included serving as a municipal councillor, Reeve of the Municipal District of Clearwater and a Member of the Provincial Executive of the Alberta Association of Municipal Districts and Counties.

With this first-hand knowledge of local government, he is very much aware of the importance of these groups to rural Albertans and their communities, and he knows first-hand of the pressures faced by local politicians.

Lund has also been actively involved in his community, as a Coordinator of the Civil Air Rescue Emergency Services (Canadian Air Rescue), a Member of the Rocky Agriculture Society, Treasurer of the Rocky Lutheran Church Parish, a Member of the Rocky 4-H Club, a Member of the Rocky Mountain Kinsmen and as a Member of the Rocky Rotary Club.

With the cross-government efforts over the years between Alberta Agriculture and Alberta Environmental Protection, Lund's knowledge of many agriculture issues and initiatives will be of great benefit to stakeholders, the industry and the department. As the new Agriculture Minister, he is wished well and has the support of Alberta Agriculture staff as he immerses himself in his new portfolio.

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Alberta
AGRICULTURE, FOOD AND RURAL DEVELOPMENT

Spring is the time to learn beekeeping

As the weather warms and aspen and willow start to bloom, beekeepers are busy inspecting their hives to see how many colonies survived the rigours of the past winter. The results during the spring of 1999 seem to be about average, with early reports of some losses as high as 25 per cent but other beekeepers reporting considerably lower losses. The true overwintering picture does not emerge until June.

"As beekeepers are evaluating their wintering results, many other people start to wonder about keeping some hives of bees for themselves," says Kenn Tuckey, provincial apiculturist with Alberta Agriculture, Food and Rural Development, Edmonton. "Unfortunately, if this urge to keep bees comes in May, it is probably too late to get started for this year."

However, spring is the ideal time for would-be beekeepers to make contact with established beekeepers in their area in order to gain some insights into what can be a very pleasant and lucrative hobby.

"In the spring, the number of bees in each hive is at its lowest ebb," says Tuckey. "These small colonies of bees are usually very even-tempered and easy to 'work'. In the spring, the novice beekeeper can build both familiarity and confidence as he or she works with a beekeeper as they examine each colony for the presence of adequate stores of honey and pollen and the presence of a good queen. When there are few bees in a hive it's easy to actually find the queen and inspect her. This is an important skill to develop. There are times when a queen must be found and being able to quickly spot her is an important asset. During the spring the novice beekeeper can work along with the experienced beekeeper and learn how to increase colony numbers in order to replace winter loss."

During the course of the season, novice beekeepers can be guided as they learn to recognize and treat for bee diseases. They can also learn to put more supers (bee boxes) on hives only as they are required and later to remove those supers when they are full of honey. This is the time when all the bending over and the heavy lifting is rewarded with a jar of the best honey you will ever taste – the first honey to which the novice beekeeper has made a significant contribution.

"As the season winds down the novice beekeeper can learn when to reduce the number of honey supers on the hives and how to prepare the colonies for winter as the bees are fed medicated sugar syrup until each hive has enough stores to give it a good chance to survive till spring," adds Tuckey. "As the cool weather comes, the season is completed by wrapping the hives with insulation or moving them into indoor wintering facilities."

With a year's experience with honey bees, the novice beekeeper should know if he or she wants to continue with their own hives. During the long winter months there is time to make the contacts and arrangements so that next summer they can begin operation and have *their* honey – produced by *their* honey bees.

For more information on this subject contact the Publications Office, Alberta Agriculture Food and Rural Development, 7000 - 113 St Edmonton AB T6H 5T6 or phone 1-800-292-5697 and ask for Agdex 616-23 Beekeeping for Beginners or go to the Alberta Agriculture web page at <http://www.agric.gov.ab.ca/agdex/600/616-23.html>. For more serious study, the 172 page manual ***Beekeeping in Western Canada*** is also available from the Publications Office for $25 (plus GST). Please add $2 (plus GST) for shipping and handling charges on mail orders.

Contact: Kenn Tuckey
(780) 415-2314

Riparian areas important to all

There is a direct relationship between land management practices and water. Whether land is used for pasture, crops, industry or recreation, how it is used has a direct effect on water flow and water quality.

"A riparian area isn't just the bank and the water flowing in a creek, it includes the whole 'green zone' along streams, rivers wetlands and lakes," says Barry Adams, range management specialist with Alberta Agriculture, Food and Rural Development. "Riparian areas are formed through the interaction of soils, water and vegetation. If one of these components changes, the other two also change. If water levels drop, vegetation suffers. If vegetation is lost, the streambanks and soil become exposed and then, due to increased runoff, the water suffers, too."

There are a number of reasons to be concerned with the health of riparian areas, including protection against erosion - if a riparian zone is healthy and has enough wood shrubs, grasses and sedges to form a deep root mass, it helps stabilize the bank. Removal of this vegetation accelerates stream bank cutting and slumping and results in a loss of land and water quality.

Vegetation of the right kind and amount is vital in riparian areas to act as a filter for nutrients and pollutants coming from upstream. Healthy riparian vegetation increases water quality and reduces the effects of flooding. Even drought effects can be reduced as riparian vegetation stabilizes streambanks, offers higher water holding capacities and maintains forage production. Riparian vegetation can be maintained and restored by implementing various methods of

Cont'd on page 3

range and pasture management, especially rotational grazing practices. The key is providing proper amounts of rest after grazing.

"For many Albertans, the drinking water supply, both quantity and quality is of growing importance," says Adams. "Many people depend on the groundwater supply for drinking water, for the household and for livestock. Riparian areas help supply water to underground aquifers by acting as a holding tank and filtering out pollutants. They help ensure a steady and clean supply of water."

Riparian areas are critical to the survival of fish, birds and wildlife, also. These areas are needed for their food and shelter, probably more than any other area on the landscape. Naturally, humans, as a species are drawn to riparian areas as well. Riparian areas in both urban and rural settings support many outdoor pursuits including hiking, canoeing, hunting, fishing, backpacking and trail-riding.

"There are many programs that work toward enhancing Alberta's landscapes and riparian areas," adds Adams. "One such program is the Cows and Fish Program that aims to foster a better understanding of how improvements in grazing management on riparian areas can enhance landscape health and productivity. A major new direction for Cows and Fish in the past two years has been to work at the community level within rural watersheds promoting improved understanding and management of riparian areas. Perhaps the biggest program achievement realized in this phase of the program is the opportunity to work with seven communities, so far, on a riparian health assessment program and help them complete a status report of the riparian health of the local area."

The North American Waterfowl Management Plan (NAWMP), another program that benefits riparian areas, recently released ***Conservation Through Cooperation - Progress Review April 1997 to March 1998***. The Review discusses several of NAWMP's projects and successes.

NAWMP reflects an agreement between Canada, the United States and Mexico to conserve habitats important to waterfowl on a continental scale. To achieve NAWMP's goals for Alberta, many partners work together to conserve habitat, control and prevent crop damage, communicate with the public, evaluate research project and coordinate other activities.

"The conservation efforts of NAWMP partners not only benefit waterfowl, but all Albertans as well as fish, wildlife and other birds," adds Adams.

Copies of the NAWMP Progress Review are available by contacting Ducks Unlimited Canada provincial headquarters at (780) 489-2002, e-mail <**b_calverley@ducks.ca**>

Further information on riparian area conservation is available by contacting Barry Adams at (403) 382-4299, e-mail <**barry.adams@agric.gov.ab.ca**>

Greg Hale (403) 381-5377, Lorne Fitch (403) 382-4358, or Norine Ambrose (403) 382-5538

Contact: Barry Adams
(403) 382-4299

Bill 31 passes Committee stage in Legislature

Although Bill 31, the *Agricultural Dispositions Statues Amendment Act*, has passed Third Reading, the Bill will not become law until a Cabinet order is passed to "proclaim" the Bill, a regular process for all Bills. The Province will not proclaim Bill 31 until the regulations have been developed with stakeholder input.

The Bill passed through Committee Stage with one amendment to address concerns voiced by grazing lease holders. "The amendment clarifies that, when industrial sites are no longer required, they will automatically be returned to the agricultural disposition," says the Bill's sponsor, Tom Thurber, MLA (Drayton Valley-Calmar). "This amendment will remove doubt on this issue as we move into the consultation process for regulation development."

Once the consultation process has been defined, stakeholders will be invited to become involved in the process of developing the regulations. Several issues arising from Bill 31 need to be addressed in regulation.

These issues include what defines "reasonable" and "unreasonable access", operational concerns, damages and the appropriate process to resolve disputes.

Clear, understandable regulations and guidelines that maintain the current good relations between the Government, its' leaseholders and all users of public lands is the ultimate goal. The intent of Bill 31 is to implement the provisions of the Agricultural Lease Review Report. After nearly two years of consultation with stakeholders in the Agricultural Lease Review, the province, as the landowner, is changing the way it leases land for agricultural use.

Bill 31 strives to strike the right balance between the interests of leaseholders, industry, recreational users and the people of Alberta who own the land.

Contact: Tom Thurber *Michael Lohner*
(780) 415-0981 *(780) 427-2137*

Farm operation cost guide

The new edition of ***Farm Operations Cost Guide***, prepared by the Agricultural Business Management Branch of Alberta Agriculture Food and Rural Development is now available.

The guide has three sections:

- the customs rates survey summary – contains a summary of the custom rates surveys carried out by the production economics and statistics branch. These surveys encompass most farm operations including tillage, seeding, harvest, and land leasing;
- the farm machinery cost guide – includes a survey of machinery cost conducted in December 98 and calculations based on average cost and average hours of use to give a unit cost of ownership; and,
- calculating farm machinery costs – provides formulas and work sheets so the farm manager can enter his own numbers and calculate his own fixed and variable costs associated with purchasing the capital asset.

"With the ever-increasing costs of machinery it is becoming increasingly important for farm managers to use sound economics when making their machinery purchase decisions," says Dann Mattson, farm management specialist with Alberta Agriculture, Olds. "The guide will help farm managers consider all the alternatives, including leasing and custom work, before making the final decision for their operation."

This year, after reviewing industry data, the years of life and salvage value have changed to more accurately indicate what is happening in the marketplace in the farm machinery cost section of the guide. These changes will make the calculations more accurate but they are still calculated using average numbers. It is recommended that farmers use their own specific information and worksheets wherever possible.

The publication costs $5.00 (plus GST) and is available at all Alberta Agriculture district offices and the Publications Office, 7000 - 113 Street, Edmonton, AB T6H 5T6 or by calling 1-800-292-5697. VISA and MasterCard are accepted.

Contact: *Dann Mattson*
(403) 556-4248

A new diversification resource available

An extensive collection of books on a variety of agricultural diversification options is available to borrow free of charge through Alberta Agriculture, Food and Rural Development's rural development specialists - business. These books and fact sheets include:

Alternative Livestock:

- Alberta White-tail and Mule Deer Association Business Plan
- White-tail and Mule Deer Farming in Alberta
- Review of the scientific literature on Velvet Antler
- Alberta Elk Association Research and Development Plan
- Bison Profits – profit planning tools in an Alberta 50 cow start-up bison enterprise; this fact sheet provides economic information on establishing and operating a bison enterprise. The information was generated by a group of bison producers who arrived at consensus on investment, production, costs and revenues. This enterprise is a cow-calf operation consisting of 50 cows located in West Central Alberta. It is a one person operation as reflected in the facilities, line of equipment, feeding program and feed-handling system.

Business Development:

- Hiring Help – Legal Ease for Entrepreneurs
- Corporate Record Keeping – Legal Ease for Entrepreneurs
- Naming your Business – Legal Ease for Entrepreneurs
- Skid Marks – legal information business owners should know – Legal Ease for Entrepreneurs
- Incorporating and Organizing a Corporation – Legal Ease for Entrepreneurs
- Guerrilla Trade Show Selling

Value-Added/Diversification:

- Adding Value with Small-scale Food Processing and Specialty Dairy Products – case studies
- Horticultural Innovators – case studies
- Commercial Tree Nursery Industry – Ag-Venture – the purpose of this fact sheet is to introduce nurseries as a potential business opportunity. Focus in this profile is on key management issues associated with producing and marketing nursery crops in Alberta. This overview isn't intended to be a substitute for making a thorough assessment of all the key factors that would influence the success of an individual operation.

Rural Tourism:

- Agri-tourism – opportunities/challenges in farm-base recreation and hospitality case studies
- Planning Special Events

Cont'd on page 5

"For further information on the resources available to Alberta agriculture entrepreneurs, contact the local rural development specialist – business," says Kerry Engel, rural development specialist – business with Alberta Agriculture, Westlock.

Alberta Agriculture's rural development specialists – business:

Kerry Engel	Westlock	(780) 349-4465
Lori-Jo Graham	Claresholm	(403) 625-1445
Linda Hawk	Hanna	(403) 854-5500
Sharon Homeniuk	Stony Plain	(780) 963-6101
Tim Keating	Falher	(780) 837-2211
Morley Kjargaard	St. Paul	(780) 645-6301
Kathy Lowther		
Donna Fleury	Airdrie	(403) 948-8537
Janice McGregor	Morinville	(780) 939-4351
Leona Reynolds-Zavak	Vermilion	(780) 853-8101
Brenda Lea MacPhail	Medicine Hat	(403) 529-3616
Lynn Stegman	Lacombe	(403) 782-3301
Jan Warren	Vulcan	(780) 485-2236
Marian Williams	Camrose	(780) 679-1210

Contact Kerry Engel
(780) 349-4465

Agri-News Briefs

New western range research seminar announced

The Western Range Research Seminar, co-sponsored by the Lethbridge Research Centre and Alberta Agriculture, Food and Rural Development, is slated for January 23 to 25, 2000 at the Lethbridge Lodge. The theme, The Range: Progress and Potential is designed to focus on the improvement of range productivity and address the deeper issues involved in preserving the rangeland resource. The seminar will provide a fresh perspective on range use from agricultural research leaders from across North America. Speakers are being chosen for their broad-base of knowledge of range issues and their ability to challenge thinking. Topics will reflect the emerging issues of range management including: carbon storage on rangelands; plant community response to grazing impact; rangeland food webs; poisonous range plants; water effects on cattle; biocontrol of rangeland weeds; parasites in cattle; riparian systems; managing cattle to reduce water contamination; songbirds and waterfowl response to grazing; and soil response to cattle grazing. It will be of special interest to people involved in all aspects of beef production as well as those interested in public land use. For further information, contact Dr.Walter Willms, land resource sciences, Lethbridge Research Centre (403) 317-2218 or Barry Adams, range management specialist, Alberta Agriculture, Food and Rural Development (403) 382-4299.

Alberta Hort Congress

The keynote speaker for the 1999 Alberta Horticultural Congress is Dr. Tim Ball. Ball has extensive science background in climatology. He has given over 500 public educational talks on science and the environment in the last 10 years as well as authoring weather articles for each issue of *Country Guide*. The 1999 Hort Congress will be held at the Mayfield Inn and Suites on November 11 to 13, 1999 Programs and registration forms will be available by August 30, 1999, and distributed by the sponsoring associations to their members. Anyone not a member of Landscape and Nursery Trades Association (LANTA), Fruit Growers Society of Alberta (FGSA), Flowers and Herb Growers Society of Alberta (FHGSA), Alberta Market Gardens Association (AGMA) or a Alberta Greenhouse Growers Association (AGGA) can phone (780) 415-2324 or fax (780) 998-7776 to be placed on the mailing list. For further information, contact Shirley Alton, Congress Coordinator at (780) 425-2324.

Coming Agricultural Events

June 1999

Greenhouse Open House & Tour – Crop June 8
Crop Diversification Centre South
Brooks, Alberta
Fee: $10 . For commercial producers of greenhouse crops
Contact: Pat Cote
(403) 362-1316

Alberta Women's Institutes 90th Anniversary Convention
June 9 - 10
Olds College
Olds
Contact: Alberta Women's Institutes, Executive
(403)488-5282

CCA – Beef Cattle Research Council Workshop
June 10 - 11
Radisson Hotel (formerly the Crossroads Hotel) 2120 - 16th
Calgary
Contact: Rob McNabb or Elaine Bates
(403) 275-8558

Natural Horsemanship – Teaching people to teach horses
June 10 - 13
Stettler Agriplex
Stettler
Contact: Stettler Ag Society, Cathy Coates
(403) 742-6288

Farmers' Day
June 11
Agriculture Centre
Airdrie
Contact: Russie Anderson
(403) 948-8503

Direct Seeding Plot Tour
June 14
Bow Island
Contact: Carrie Rogers
(403) 867-3606

Western Forage/Beef Group Pasture School
June 15 - 17
Lacombe Research Centre
Lacombe
Fee: $250 (before May 28/99); $280 (after May 28)
Contact: Cathy Hendrickson
(403) 782-8030

Alberta Farm Writers Association Annual Meeting & Tour
June 17 - 18
Heritage Inn
High River
Fee: $60.00
Contact: Janet Kanters
(403) 934-9263

Alberta Provincial Plowing Match
June 18 - 20
Fair Grounds
Wanham
Contact: Robert Kobylanski
(780) 694-2045

1999 FCA Pete Knight Rodeo
June 18 - 20
Rodeo Grounds
Crossfield
Contact: Heather Lrvine-Gadd
(403) 242-0426

Southern Alberta Soil & Crop Diagnostic Field School – Potato Information Day
June 21
Lethbridge Research Centre
Lethbridge
Contact: Terry Sheen/Ross McKenzie
(403) 381-5126

Manure Management '99
June 22 - 26
Saskatoon Travelodge
Saskatoon, Saskatchewan
Contact: Grant Wood
(306) 966-5586

Poultry Research Centre Grand Opening
June 25
University of Alberta, Edmonton Research Station
Edmonton
Contact: Martin Zuidhof
(780) 427-4608

Rural Family Safety Day Camp
June 26
Battle River Ag. Society Grounds
Manning
Fee: $10.00 per family
Contact: Kathy Nelson
(780) 836-3391

4-H Rodeo
June 26 - 27
Rodeo Grounds
Hand Hills
Fee: $3 non stock events, $5 stock events
Contact: Wanda Peterson
(403) 854-2480

Red Deer Direct Seeding Day – Integrated Crop Management
June 28
1 km west of 32nd Street and Highway 2
Red Deer
Contact: Rick Taillieu
(403) 556-8235

July 1999

4-H Rodeo
July 1
Agriculture Society Grounds
Stettler
Contact: Janet Kerr
(403) 742-7547

Focus on 4-H
July 2 - 4
AgriCom - Northlands Park
Edmonton
Fee: $20/3 days plus livestock fees
Contact: Jocelyn McKinnon
(780) 674-8248

Southern Alberta Soil & Diagnostic Field School – Dryland Crop
July 5
Lethbridge Research Centre
Lethbridge
Fee: $100/farmer; $175/non-farmer
Contact: Terry Sheen
(403) 381-5126

Southern Alberta Soil & Diagnostic Field School – Irrigated Crops
July 6
Lethbridge Research Centre
Lethbridge
Fee: $100 farmer; $175 non-farmer
Contact: Terry Sheen
(403) 381-5126

Crop Improvement Day 99
July 6
Field off #9 Highway NE-10-28-3-W4
Oyen
Contact: Trevor Wallace
(403) 664-3899

Rural Family Safety Day Camp
July 7
Trochu
Fee: $10.00 per family
(403) 442-2547 or (403) 546-3885

Canadian Seed Growers Association Annual Meeting
July 7 - 10
Loews Le Concorde Hotel
Quebec, Quebec
Fee: $175
Contact: Quebec Pedigreed Seed Growers
(450) 679-0540 ext 8438

Western Canada Agronomy Workshop
July 7 - 9
Brandon, Manitoba
Contact: Terry Roberts
(306) 652-3535

Prairie Provinces CCA Program Update
July 7
Brandon, Manitoba
Contact: Terry Roberts
(306) 652-3535

Big Country Heifer Show
July 7 - 8
Oyen Arena
Oyen
Contact: Melvin or Linda Bingeman
(403) 780-2181

Direct Seeding Plot Tour (Main Tour)
July 8
SE - 18-9-10-W4
Bow Island
Contact: Carrie Rogers
(403) 867-3606

Calgary Stampede
July 9 - 18
Stampede Park
Calgary

Nutracon '99
July 12 - 14
Caesar's Palace
Las Vegas, USA
Contact: Customer Service
1-888-868-7188

Agricultural Service Board Provincial Tour, Summer 1999
July 13 - 16
Omniplex
Drayton Valley
Contact: Tennie McCracken
(780) 542-7777

Canadian Junior Angus Heifer Show
July 14 - 17
Agricultural Grounds
Bashaw
Fee: $ 15 for on time. $30 for late entries –
Entry deadline May 31, 1999
Contact: Jackie Northey
(780) 372-3648

Crop Diagnostic Field School
July 15 - August 6
University of Alberta research farm
Ellerslie (Edmonton)
Contact: Michele Dannish
(780) 422-3825

Rural Family Safety Day Camp
July 15
Stony Plain, AB
Fee: $10.00 per family
(780) 963-2777

Provincial 4-H Beef Heifer Show
July 18 - July 20
Agriculture Grounds
Bashaw
Contact: Henry Wiegman
(780) 422-4444

13th International Farm Management Congress
July 19 - July 24
Holiday Inn
Durban, South Africa, Natal
Fee: est $600 US
Contact: J. Wilson Loree
(403) 556 4213

Canadian National Junior Limousin Show
July 20 - July 22
Agriculture Grounds
Bashaw
Contact: Laura Bodell
(780) 467-2726

Westerner Days Fair & Exposition
July 21 - July 25
Westerner Park, 4847A - 19 Street
Red Deer
Contact: Westerner Exposition Association
(403) 343-7800

Wild Rose Classic – Young Canadian Simmental Show
July 22 -July 25
Agricultural Grounds
Bashaw
Contact: Clint Sutter
(780) 879-2161

Edmonton Klondike Days
July 22 - 31
Edmonton Northlands
Edmonton

Rural Family Safety Day Camp
July 22
Burdett
Fee: $10.00 per family
(403) 545-2296

Crop Diversification Centre North Field Day
July 27
17507 - Fort Road
Edmonton
Fee: Pre-registration required
Contact: Dr. Stan Blade
(780) 422-1789

Rural family safety day camp
July 28
Vulcan
Fee: $10.00 per family
(403) 485-2292

August 1999

Cereal Field Day
August 4
AAFC & Alberta Agriculture Research Stations
Lacombe
Contact: Dr. George Clayton
(403) 782-8123

Agriculture Institute of Canada Annual Conference

August 8 - August 10
University of Prince Edward Island
Charlottetown, P.E.I.
Contact: Kais Deelstra
(902) 368-4842

North American Weed Management Association – 7th Annual Conference & Trade Show

August 10 - August 12
Lethbridge Lodge Hotel
Lethbridge
Contact: Shaffeek Ali
(780) 422-4909

Rural Family Safety Day Camp

August 12
Camrose
Fee: $10.00 per family
Contact: 1-800-296-8112 or (780) 672-0141

Western Canadian All Breed Heifer Show, Team Judging Finals and National Young Cattleman (NYC) Competition

August 19 - 21
Agriculture Grounds
Bashaw
Fee: $15 on time, $30 late entry –
Entry deadline - July 26, 1999
Contact: Jackie Northey
(780) 372-3648

National Beef Science Seminar

August 20 - 21
University of Alberta
Edmonton
Contact: Dr. Bob Christopherson
(780) 492-3388

Nature, Wealth and the Human Economy in the Next Millennium

August 27 - 29
Luther College, University of Regina
Regina, Saskatchewan
Contact: Dr. Paul C. James
(306) 787-9058

September 1999

XXXVI International Apicultural Congress

September 13 - 18
Vancouver Trade and Convention Centre
Vancouver, B.C.
Contact: Apimondia '99

Crop Protection Institute Annual Conference

September 19 - 22
Westin Hotel
Calgary
Contact: Crop Protection Institute
(416) 622-9771

World Dairy Expo

September 29 - October 3
Dane County Expo Centre
Madison, Wisconsin
Contact: World Dairy Expo
(608) 224-6455

October 1999

Agriculture and Food Week

October 10 - 16
Alberta
Contact: Ron Brown
(780) 422-3925

Provincial Riparian Challenges Conference

October 19 - 21
Capri Hotel
Red Deer
Contact: Jackie McCall
(403) 948-8540 or (403) 948-8512

Agriculture's Role in Managing Antimicrobial Resistance

October 24 - 26
International Plaza Hotel
Toronto, Ontario
Contact: Dawn Pate
(519) 826-3584

Chinook Livestock Classic

October 28 - 30
Exhibition Pavilion, Lethbridge & District Exhibition, Lethbridge
Contact: Lethbridge & District Exhibition,
(403) 328-4491

November 1999

Farmfair International '99

November 6 - 14
Northlands Park
Edmonton
Contact: Northlands Park
(780) 471-7210

Red Deer International Agri-Trade
November 10 - 13
Westerner Park, 4847A - 19th Street
Red Deer
Contact: Pat Kennedy
(403) 343-7800

Saskatchewan Pork Industry Symposium
November 18 - 19
Saskatoon Inn
Saskatoon, SK
Contact: Wendy Hayes
(306) 933-5078

Alberta Sheep Symposium
November 26 - 28
Capri Centre
Red Deer
Contact: Amy Jackson
(403) 335 - 4348

Reduced Tillage Conference
November 30 - December 1
Lethbridge Exhibition
Lethbridge
Contact: Rob Dunn/Amy Stratton
(403) 381-5237

December 1999

Alberta Barley Commission Annual Meeting
December 2
Greenwood Inn
Edmonton
Contact: Annette Baker or Mona Carder
(403) 291-9111

January 2000

Alberta Horse Breeders and Owners Conference
January 7 - 9, 2000
Capri Centre
Red Deer
Fee: $75 per person
Contact: Les Burwash
(403) 948-8538

Banff Pork Seminar
January 18 - 21, 2000
Banff Centre for Conferences
Banff
Contact: Banff conference office
(780) 492-3236

Western Range Research Seminar
January 23 - 25, 2000
Lethbridge Lodge Hotel
Lethbridge
Contact: Walter Willms
(403) 317-2218

April 2000

1st International Symposium on Antler Science and Product Technology
April 9 - 12, 2000
Eric Harvie Theatre, Banff Centre
Banff
Contact: Dr. Robert Hudson
(403) 492-2111
Fax: (403)492-0097

June 2000

Manure Management 2000
June 26 - 28, 2000
5:00 pm - 5:00 pm
Westin Hotel
Calgary
Contact: Michelle Follensbee/Darcy Fitzgerald
(780) 415-0828/(403) 340-4822

July 2000

Calgary Stampede
July 7 - 16, 2000
Stampede Park
Calgary

August 2000

International Bison Conference
August 1 - 4, 2000
Mayfield Inn
Edmonton
Contact: Phil Staden, Convention Chairperson
(403) 763-2107

World Poultry Conference
August 20 - 25, 2000
Palais Des Congres
Montreal, Quebec
Contact: Events International Meeting Planners
(514) 286-0855

October 2000

World Dairy Expo
October 4 - 8, 2000
Dane County Expo Centre
Madison, Wisconsin
Contact: World Dairy Expo
608-224-6455

July 2001

XIV International Plant Nutrition Colloquium
July 28 - August 3, 2001
University of Hannover
Hannover, Germany
Contact: IPNC Secretariat
+49-(0)511-762-2626
Fax: +49-(0)511-762-3611

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Coming agricultural events notice

Do you know of any provincial (Alberta), national or international agricultural meetings, conferences or conventions coming in 1999 or 2000?

Please state the **name** of the event(s):

When is the event being held?

Where is the event being held? Include city or town; hotel or convention centre, if known:

Please give **name, city or town, and phone number** of a **contact person** for each event listed:

This form has been **completed by** what organization? Please include your phone number:

Please return this form by August 20, 1999 to:

Lee Anne Palutke, Agri-News Editor
Communications Division
J.G. O'Donoghue Building
7000 - 113 Street
Edmonton, Alberta T6H 5T6
Phone: (780) 422-6958
Fax: (780) 427-2861
E-mail: agrinews@agric.gov.ab.ca

"Coming agricultural events" is published quarterly in Agri-News.
The next list will be September 1999.

Agri-News

June 14, 1999

ACC and Alberta Agriculture partners in ground squirrel control

The Alberta Cattle Commission and Alberta Agriculture, Food and Rural Development have formed a partnership in the battle against the prairie gopher, otherwise known as the Richardson's ground squirrel.

"For years, ranchers and landholders have waged a relentless battle against the damage and far reaching economic affects ground squirrels inflict upon pasture and hay land in Alberta," says John Bourne, vertebrate pest specialist with Alberta Agriculture, Food and Rural Development, Vermilion.

The age-old problem with 'gophers' probably began soon after settlement of the West when ground squirrels invaded cereal and forage crops on the prairies. Farmers devised all types of control techniques including snaring, trapping, drowning and shooting. In some areas the problem was so severe a penny-a-tail bounty system was offered.

As settlement expanded across the province and problems with ground squirrels escalated, ranchers turned to commonly used rat baits such as thallium and arsenic and red squill. Unfortunately, these baits did very little to combat the ground squirrel problem.

"Eventually, strychnine alkaloid mixed with grain was found to be an effective control agent and soon became the mainstay of ground squirrel control," says Bourne. "For decades, strychnine was manufactured at two per cent strychnine in a liquid concentrate mixed with a flavour enhancer to mask the bitter taste of the poison. The poison was mixed with a calculated volume of grain by the farmer for immediate use on the farm."

About 10 years ago, the federal registry agency banned the sale and manufacturing of several dangerous and lethal pesticides, including strychnine, in order to control 'unlimited and unregulated use' of such pesticides. To compensate for the loss of strychnine concentrate, the Pesticide Management Regulatory Agency (PMRA) allowed the manufacture and sale of strychnine baits, but only as a mixed-with-grain, ready-to-use bait.

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This Week

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Agri-News **Publishing Branch, Tel: (780) 427-2121 Fax: (780) 427-2861**

Internet site: www.agric.gov.ab.ca/agrinews Editor e-mail: agrinews@agric.gov.ab.ca

Alberta
AGRICULTURE, FOOD AND RURAL DEVELOPMENT

"Almost from the beginning, the new pre-mixed strychnine baits failed to meet farmers expectations and complaints poured in," continues Bourne. 'In response to end-user claims of inadequate and inconsistent bait performance, PMRA required mandatory on-line quality assurance testing of baits for adequacy and consistency of active ingredient. In spite of this, however, allegations of poor bait performance continued."

In the spring of 1999, Gary Sargent of the Alberta Cattle Commission contacted Alberta Agriculture to inquire about alternatives to pre-mixed strychnine baits to control ground squirrels. Bourne suggested to Sargent that although there were other registered baits for ground squirrel control, there appeared to be none that stand above the rest.

As an alternative to trying another bait, Bourne suggested field tests on the currently registered strychnine RTU baits by a third independent party under controlled conditions to objectively evaluate their performance. The reasoning was that applied field testing under controlled conditions has never been done and feedback from farmers may be somewhat circumspect due to the wide variety of bait applications, times of year, bait placement and measurement of efficacy.

The ACC agreed and a contract was drawn up between the ACC and an independent biologist to field test strychnine ready-to-use baits. The trials, which began in early May and are being conducted in pastures and hay land in northeast Alberta, will be end-user based, meaning the baits will be set out according to label instructions. Performance of the bait will be calculated on changes in ground squirrel numbers.

"The results from these trials will serve to either inform ACC members and others that strychnine RTU baits do perform satisfactorily at a minimum 70 per cent level or could be the basis for a legitimate complaint to Ottawa that the baits do not perform satisfactorily," concludes Bourne. "Either way, some of the nagging questions about these baits may finally be answered."

Contact: *John Bourne*
(780) 853-8225

Crop Diagnostic Field School adds a direct seeding module

The Ellerslie Crop Diagnostic Field School is entering its ninth summer of operation. It is run by the Agronomy Unit of Alberta Agriculture, Food and Rural Development and sponsored by industry.

"The purpose of the school is to teach diagnostics techniques in an integrated fashion, help participants identify problems associated with today's crop production systems and provide information on recent developments in agronomy," says Peter Gamache, manager of Alberta Reduced Tillage Initiative (ARTI). "The school is located at the University of Alberta, Ellerslie Research Farm in southwest Edmonton and runs from July 15 to August 6 this year."

The 1999 school has added a direct seeding module, sponsored by ARTI. The direct seeding module features residue management, weed control and fertility. Other modules offered are: Canola, agronomy, field variability, herbicides and weeds, crop staging, diagnostics challenge, insects and forages.

"ARTI has reserved three days specifically for farmers to attend and learn more about the benefits of direct seeding and to go through some of the other modules," adds Gamache. "The dates are July 22, 26 and August 5. Space is limited, so register soon."

To register, contact one of the reduced tillage agronomists in your area: Mark Olson in Leduc (780) 980-4898; Ron Heller in Vermilion (780) 853-8262; Rick Tallieu in Olds (403) 556-8235 or Grant Nelson in Stettler (403) 740-7546. Southern Alberta farmers can get a hold of Pat Pavan (403) 327-9215, ARTI's agronomist in Lethbridge, for more information on three direct seeded diagnostics sites in the south.

More information on the Ellerslie Field School is also available from Keith Topinka of Alberta Agriculture, Food and Rural Development (780) 422-0891.

Contact: *Peter Gamache*
(780) 427-3361

Alberta and Montana develop plan of action on trade and opportunities

Agricultural leaders from Alberta and Montana met on June 1 and 2, 1999, in Great Falls, Montana to address cross-border trade and global business opportunities. Montana Governor Marc Racicot and Alberta Premier Ralph Klein delivered the opening remarks to the Montana-Alberta Agricultural Opportunities Conference.

The conference was sponsored by the Government of Alberta and the State of Montana as a result of a commitment made during a meeting in December 1998 between Premier Klein and Governor Racicot.

"Montana and Alberta have a long history as interdependent agricultural regions. We share the same advantages – productive soils, quality animals and proximity to markets," says Ralph Peck, Montana's Director of Agriculture and co-chair of the conference. "As a result, our combined agri-food trade has grown to total over $US 91 million ($CDN 132 million). This represents a 103 per cent increase since 1994.

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Working together, we can and must develop fair and equal trade opportunities for the future of our industry."

"Our agricultural leaders have shown us why there is reason for significant optimism. They are discussing solutions and building personal relationships," says Ty Lund, Minister of Alberta Agriculture, Food and Rural Development and co-chair. "Our governments, upon the advice of the industry, will continue to implement policies to foster these mutual opportunities and encourage necessary federal policy changes."

Conference participants convened discussion in breakout groups before making recommendations to the general plenary.

Open to stakeholders from both Alberta and Montana, the conference attracted over 200 delegates from industry and government. Conference direction and agenda items were developed by industry leaders. Participants were asked to provide advice regarding regional and global opportunities and to develop a plan of action to improve the agricultural economies of both Alberta and Montana.

In addition to participation by Alberta and Montana, the conference was observed by Ministers of Agriculture from Saskatchewan and Manitoba and their counterparts from Minnesota, North and South Dakota and federal officials from Canada and the United States.

Cross-border working groups will be established to develop action plans. They will report back to a future conference to be held in Alberta.

Contact: *Meta Boyer*
Public Information Specialist
Montana Department of Agriculture
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Executive Assistant to the
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Delegate recommendations from Alberta/Montana conference

More than 200 conference delegates developed recommendations to the organizers of the conference.

These recommendations include:

- The Governments of Alberta and Montana should continue to develop informal mechanisms to address trade irritants through the encouragement of stakeholder-based solutions.
- Alberta and Montana should provide feedback on suggested changes to Canadian and American animal health regulations to their respective federal governments in order to further promote livestock trade
- Alberta and Montana producers and governments should pursue joint agriculture industry development opportunities.
- Alberta and Montana should encourage their respective federal governments to pursue regionalization. Harmonized regulations, joint pesticide and veterinary drug registration should also be pursued.
- The Northwest Pilot Project should be expanded and similar projects launched in other sectors.
- Alberta and Montana should work together to complement each other's potato industries. Working together can facilitate penetration of world markets for North American seed, table and processed potatoes.
- Alberta and Montana should continue to explore opportunities for enhanced, effective and efficient inter-modal transportation of commodities and value-added products. Cooperative agreements on inter-modal transportation can result in significant economic benefits to producers and processors.
- The Montana-Alberta Agricultural Opportunities Conference should be held regularly and could be expanded to include other western provinces and states.
- Conference organizers will prepare a detailed final report for public release in their respective jurisdictions.

Contact: *Michael Lohner*
Executive Assistant to the
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Full bloom ahead

Hundreds of acres of Alberta's commercial saskatoons are fields of white blossoms.

"The saskatoon, once only a native bush growing in river valleys in southern Alberta and scattered groves or bluffs throughout central and northern Alberta and many other Canadian provinces and territories, is now one of the major commercial fruit crops being produced on the prairies," says Lloyd Hausher, provincial fruit crops specialist at Alberta Agriculture, Food and Rural Development's Crop Diversification Centre South (CDCS), Brooks.

From the first one to five acre test plantings established in the Peace River country and central Alberta in the early 1970's, the acreage of saskatoons has steadily increased to a present estimation of 1500-2000 acres in Alberta

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"Native to Alberta, the saskatoon has adapted well to most Alberta growing conditions including soil types and climate," says Hausher. "However, as a totally new commercial crop there were no crop protection tools that prospective producers had at their disposal, and due to the number of years growing in the wild, numerous disease and insect pests were in existence. Alberta Agriculture and others made and is continuing to make sustainable efforts to obtain minor use registrations for herbicides and pesticides for use on saskatoons. As a result, orchardists can now produce a good quality crop with reasonable assurance."

Initially, saskatoon plantings were established in small acreages primarily due to limited plant supply. Most of these one to five acre plantings are still marketed on a u-pick basis where customers come to the farm and harvest the berries. In more recent years, larger plantings have been established with several farms reporting over 50 acres planted to saskatoons.

"The saskatoon plant requires many years to reach full maturity, generally 7 to 10 years," adds Hausher. "Although production is lower in early years, it affords an opportunity for growers to become accustomed to the plants growing, management, harvest and product handling requirements."

Harvest of the saskatoon is generally short in duration, although can be extended with the planting of a number of varieties. Saskatoons, like most horticultural crops, are a perishable commodity and the time from harvest to freezing is an important consideration. Of the approximately 700 to 800 acres of mature saskatoons in Alberta, the majority is harvested by the 20+ bush fruit harvesters, cleaned and frozen for future use in processing. Producers considering or planting sizable acreages of saskatoons must take into consideration the requirements of harvesters, cleaners, quick freezers and frozen storages.

"Although plantings of saskatoons for the u-pick market will continue to increase steadily as new consumers discover the fruit and venture to the farm in search of it, the saskatoon industry will experience its major growth from larger commercial plantings," says Hausher.

Initial establishment costs of land preparation, plant material and irrigation can be substantial, however, input costs over the following two to five years is usually minimal. Once the orchard reaches maturity, another substantial input of pruners, harvesters, cleaners and freezing storage is required. Producers looking at saskatoon production as an alternative or diversified crop should consider planting a minimum of 10 acres to justify these inputs.

As more of these larger commercial orchards reach maturity and increased tonnage of saskatoons is harvested, marketing and marketing challenges will become more of a major issue for the industry. Presently the Fruit Growers Society of Alberta (FGSA) is looking at various marketing structures including cooperatives, central desk selling or alternatives.

"The future of saskatoon production in Alberta looks encouraging with an increasing number of acres being established each year," says Hausher. "The industry is presently in full bloom with prospects of a bumper crop in the near future."

Contact:	*Lloyd Hausher* *(403) 362-1309*	*Fruit Growers Society of Alberta* *(780) 998-0481*

Canadian Quality Assurance program for Alberta pork producers

The Canadian Quality Assurance (CQA) program was developed by the Canadian Pork Council, which represents pork producers across Canada. Three years ago, a pilot project by Alberta Agriculture, Food and Rural Development in Alberta helped develop some of the principles of the program, along with projects in other provinces. Now, efforts are directed towards implementing a single program across Canada. The program focuses on preventing food safety hazards on the farm, such as drug residues and broken needles. The program format is based on HACCP (Hazard Analysis Critical Points), an internationally recognized system of ensuring food safety.

"Alberta Quality Pork (AQP) is the delivery agency for the CQA program in Alberta," says Dr. Julia Keenliside, swine veterinarian with Alberta Agriculture, Food and Rural Development, Edmonton. "The program office was officially launched last summer and the program office was transferred from Alberta Agriculture in January 1999 to the Alberta Pork Producer's Development Corporation building."

AQP now employs one full-time manager, Dawn LeBlanc. AQP is a partnership among Alberta Pork, Western Hog Exchange, Fletcher's Fine Foods and Alberta Agriculture, and is run by a board of directors representing these groups. Directors include Julia Keenliside and Doug Milligan from Alberta Agriculture, plus two elected pork producers. Funding is provided by the Hog Industry Development Fund (HIDF) and by producer fees.

"There are 231 pork producers currently enrolled in the voluntary program, representing approximately 30 per cent of Alberta's production," says AQP manager, LeBlanc. "Farms enrolled include large multi-site units, farrow-to-wean, farrow-to-finish, finisher operations and Hutterite colonies, and vary in size from only 50 sows to over 1500 sows. Enrollment costs $150 and producers receive posters on drug withdrawal times, safe injection techniques, a treatment record book and a program binder. Included in the binder is an On-Farm Assessment Form that the producer uses to evaluate procedures on the unit and write protocols."

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Seven other provinces are also participating, with up to several hundred producers now enrolled in some provinces.

Under CQA, a validator training manual, presentation and exam has been developed. Practising veterinarians have been trained in many provinces and to date, 19 veterinary practitioners have been trained in Alberta. Eight farms have been successfully validated so far, with the emphasis on getting the rest of the enrolled producers validated in the next few months.

Fletcher's Fine Foods, Alberta's largest pork processor, is actively promoting the program. Producers must be enrolled on CQA in order to qualify for Fletcher's 'High Health' premium program. Fletcher's has stated that producers have six months from the time they start on the High Health program to get validated and is encouraging all producers to join.

Contact: *Julia Keenliside*
(780) 427-4614
Dawn LeBlanc
(780) 477-6729
Doug Milligan
(780) 427-4589

Farmers' Markets attract buyers from food service

Menus in high-end Canadian restaurants show that today's top chefs are providing their customers with very unique offerings. The vast array of produce and products grown and processed have opened up a whole new world for the culinary expert. According to a recent study, many growers and processors are supplying these products directly to the chefs.

"*Foodservice and Hospitality* magazine polled food service operators across Canada to discover just what they expected of their suppliers and distributors," says Joyce Lencucha, agri-food development consultant with Alberta Agriculture, Food and Rural Development. "The results have many positive implications for direct marketers and growers alike."

The following results were written up in the April 1999 edition of *Foodservice and Hospitality*:

- While many chefs talk about buying Canadian or locally produced goods, a slim majority of operators consider this a priority. However, if issues such as cost, quality and availability were addressed, many operators say they would choose Canadian goods.
- More operators are also seeking out local sources of product, such as small independent manufacturers or farmers' markets, either due to convenience, the need for quality or because their regular suppliers can't meet their demands.
- 80 per cent of operators surveyed purchase up to 20 per cent of their products outside the traditional network, either through local businesses, farmers' markets or bulk retailers. Of the respondents, 85 per cent are able to sample new products before making a purchase, something most say is very important to them.

Advantages to selling to a restaurant:

- a steady market available throughout the production season and the opportunity to receive top dollar for product, especially for upper scale and specialty items not available through wholesalers.
- Growers and buyers alike appreciate the personal contacts they make. Dealing directly with a chef results in greater flexibility in the products grown and with marketing.
- Restaurants like to promote the fact that they are using locally-grown products. They will often mention a farm name on their menus creating brand recognition for the farm/business.

Disadvantages to selling to a restaurant:

- Frequent deliveries are required when dealing with restaurants because of their limited cooler space. The necessity to delivery smaller volume with each delivery and hence more frequent deliveries can result in more paperwork and time away from the business.

How do I access Farmer's markets?

- In Alberta, the Alberta Farmers' Markets guide lists contact numbers for all 103 officially sanctioned markets in the province. Copies of this brochure are available free of charge at all Alberta Agriculture district offices and at the Publications Office, 7000 - 113 Street, Edmonton, AB T6H 5T6.

"There are a variety of markets across the province in a variety of sizes," adds Lencucha. "Table costs at these Farmers' Markets vary form $5 to $50. There are also many terrific local markets. Doing some market research is always a good idea and this is easily done by visiting one or more of the markets this summer. For businesses interested in targeting the food service market, there are management/marketing issues that need to be addressed. For more information, contact one of Alberta Agriculture's agri-food development consultants."

Agri-food specialists: Karen Goad, Grande Prairie (780) 538-5285; Karen Hoover, Lethbridge (403) 381-5814; Joyce Lencucha, Red Deer (403) 340-5358; and Sue Tenold, Airdrie (403) 948-8504.

Contact: *Joyce Lencucha*
(403) 340-5358

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Cooperative action meeting for flower and herb growers

The Flower and Herb Growers Association of Alberta is hosting a cooperative action meeting on June 24, 1999 at the Riverdale Hall, Edmonton. Interested groups and individuals are encouraged to take part by attending or sending representatives to the meeting. The goals of the meeting are to come up with ways of working together to improve access to production and processing equipment and technology, access to markets and Alberta grown brand recognition. The group will develop an action plan and make resolutions for actions that can be worked on. Registration is $10 for the day and includes lunch. For more information, contact Carmen Andrew, rural development specialist - organizations with Alberta Agriculture, Food and Rural Development, Stettler, at (780) 742-7500; e-mail <carmen.andrew@agric.gov.ab.ca> or Katie Benschop, Blooming Prairie, Edmonton at (780) 431-1451; e-mail <blooming@oanet.com>

Soil - carbon - food symposium

Predicting the Future from the Past - Celebrating 70 Years of Research and Outreach at the Breton Plots is the theme of a symposium being held at the University of Alberta, Edmonton, on July 20 and 21, 1999. The symposium, that includes a tour of the Breton Plots, focuses on soil, carbon and food. The agenda includes presentations from soil specialists from both Canada and the U.S. Issues such as Energy, environmental quality, public interest, soil science and others will be discussed. The symposium ends with a workshop where participants will be provided with a vision for the future, including suggestions and comments from the conference speakers. They will be asked to discuss the vision and develop a strategic plan for continuing research at the Breton Plots. For more information, contact Jim Robertson, U of A, (780) 492-6466 or Robert Grant, U of A, (780) 492-6609.

Agri-News

June 21, 1999

CDC North field day

Crop diversification continues to be a major focus in Alberta. Just as most of the conventional crops grown in the province were imported from other parts of the world, new crops are beginning to successfully take root in Alberta. It is the mission of the Crop Diversification Centre North (CDC North) to identify and evaluate new species and varieties that will benefit Alberta producers.

CDC North Director, Dr. Stan Blade, notes, "To get a first-hand view of new and innovative research on vegetables and fruits, new crops, woody ornamentals, greenhouse production, potatoes and a host of other programs, attend the CDC North Field Day. The field day this year is July 27th at the CDC North, located at 17507 Fort Road, in northeast Edmonton."

One major point of interest at this year's field day, is the low-THC hemp trials. The commercial production of low-THC hemp was allowed by the Government of Canada in 1998. Field trials at CDC North include hemp cultivar evaluation from several European countries, as well as a number of agronomic trials.

"Other new crop research looks at new pulse and other field crops, such as field peas, lentils, dry beans, chick peas, canaryseed, fenugreek," says Blade. "CDC North is also doing trials on spices and a large array of medicinal plants, including ginseng, echinacea and St. Johnswort."

Participants will be able to see field experiments on new vegetable cultivars, such as squash, hot peppers and garlic, and a great variety of specialty vegetables, including baby beets, kale and ornamental pumpkin. The greenhouse program provides information and tours of research facilities on protected crop production of tomatoes, lettuce and medicinal plants.

Other stops on the tour include seed potato trials, raspberry and strawberry evaluations, woody ornamental field trials and apiculture information. In addition, there will be entomologists and pathologists talking about research on insects and diseases which have great impact on Alberta producers.

Dr. Blade adds, "The format for the annual field day has changed this year. A full day tour is planned in response to requests from the public. The cost for the entire day is $25, and includes the tour, lunch and a field book featuring the research activities of each program. Tour participants will have an extended opportunity to discuss projects with CDC North researchers."

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All proceeds from the field day will be used to conduct further research on new crop opportunities for Alberta at CDC North. Due to the tremendous interest in the CDC North field days in past years, and the limited registration, registrants must pre-register and confirm their participation by pre-paying for the tour. To receive a registration form, call (780) 422-1789.

Contact: Dr. Stan Blade
(780) 415-2311

What's shooting up the canola?

Seeding's done and producers are turning their thinking to spraying and getting out to check fields. Some producers are noticing the leaves on their canola appear as if someone took a shotgun to them. Lots of little holes have shown up on the leaves.

"It's quite possible the damage is from flea beetles, a common pest at this time of year that may be showing up more than normal in some areas," says Jay Byer, cereals and oilseed crops specialist with Alberta Agriculture, Food and Rural Development, Bonnyville. "Several questions leap to mind, such as: What are they? Why are they so bad this year? Are they adversely affecting the canola? and, Can anything be done about them?"

What is a flea beetle?

The cruciferous flea beetle family are a group of small (1/4 inch or less), mainly black beetles (some have two yellow strips) that subsist off the living material of plants in the same group as canola species. If they have a choice, the flea beetles prefer Polish to Argentine fields. Weeds which support the damaging types of flea beetles include: flixweed, stinkweed and mustards. They like hot, dry conditions.

"One final way of identifying flea beetles is that they tend to jump when they are disturbed, so touch a plant with a suspected flea beetle on them and watch for the tell tale jumping as they disappear out of sight," recommends Byer.

Why are flea beetles so bad this year?

Everything is interrelated in crop production. The reason they appear to be so bad this year has a lot to do with last year's growing season. Since these insects like it hot and dry, last year was ideal for them.

"Large quantities of larger than normal flea beetles were reported last fall," says Byer. "The population went into the winter fat and happy, and now with a little bit of heat they are coming out with a vengeance. They are usually worse on conventionally seeded fields, areas that had a problem with cruciferous weeds during the previous year, and on short rotation fields, particularly back to back canola."

Are they having an impact on my canola field?

Like just about everything else, it isn't possible to tell if they are having an economic impact on a crop until the entire field is walked. It is particularly important to do this with flea beetles, since they tend to be invasive feeders. They drop down and feed at the first plant they like, and when they are coming from outside the field, they are likely to encounter a plant in the first 100 feet or so.

"The best advice is not to assess the field from the gatepost, but get right into the middle of it and see how much damage is happening across the field," adds Byer. "In a normal year, the standard measure is that a plant is not affected unless 25 per cent of the leafy material is eaten, regardless of the crop stage. Assess about 100 plants in at least 10 different areas of the field to get a good picture of what's going on."

Can I do anything about flea beetles?

If the majority of the plants on the outer edges of a field have a quarter or more of the leaf area affected and the rest of the field is below the threshold for economic damage, it may only be necessary to spray the margins of the field. If the whole field is above the threshold, spraying is probably recommended. If the damage isn't to the threshold anywhere in the field, spraying is not recommended in normal conditions.

"Producers who find that spraying is necessary, can chose any one of a number insecticides that are registered for the crucifer flea beetle on canola," says Byer. "We do have some control over this situation. The first step is checking out the fields carefully, and only spraying for flea beetles on the parts of a field where necessary. As always, it never makes sense to waste money on unnecessary pesticide applications. There will likely be lots more challenges to face this cropping year."

Contact: Jay Byer
(780) 826-3388

4-H program prepares delegates for a lifetime of leadership

School may be almost over, but for close to 100 senior 4-H members a whole new type of learning is about to begin.

Delegates from across the province converge on the Alberta 4-H Centre at Battle Lake near Westerose from June 28 to July 2 for the Leadership Through Counselling Seminar (LTCS). Sponsored by Peavey Mart and Wetaskiwin Co-op, the program builds leadership skills that these young people will use later this summer, and into their adult lives.

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"It's a very intense program," says Leila Milne, 4-H administrative assistant, Alberta Agriculture, Food and Rural Development. "The 4-H'ers have to put a lot in to it to get a lot out of it. Their participation really enhances what they learn."

During the program, 15 to 18-year-old 4-H members take part in sessions covering leadership, communication, problem solving, counselling, understanding youth and other topics. Delegates then spend one week in summer camps, using what they learned to help organize programs for younger 4-H members this summer.

"They've gone through the camps themselves, now they're going to go back," says Milne. "It's 4-H'ers contributing back to 4-H'ers."

Although LTCS is a challenging program, Milne says it's set up to teach delegates to rely on each other and to enjoy themselves. "It's supportive, but also a lot of fun. A lot of the activities are geared for 9 to 14-year-olds. They kind of go back in time, because that's the age group they'll be working with," she adds.

In preparing for their roles as camp counsellors, delegates have to learn to trust one another. Without this, the teamwork needed to run enjoyable, educational camps wouldn't exist. Exercises done at the beginning and end of the program show just how far these youth can come in a week.

"It is also a chance to get to know the other people in their groups. By the end of the program, when the trust exercises are re-done, participants find that they really trust everyone," says Milne. "These people go out and work together for one week. They make it the absolute best it can be."

Contact: Leila Milne
(403) 948-8568

May – cool with near normal precipitation

Alberta had near normal precipitation and below normal temperatures during the month of May. The provincial average temperature of 8.7 degrees C was 1.6 degrees below the 1961 to 1990 average of 10.3 degree C.

"Temperatures across the province were near normal during the first week of May, and climbed slightly above normal by the end of the first week," says Peter Dzikowski, agriculture weather resource specialist with Alberta Agriculture, Food and Rural Development, Edmonton. "Temperatures during the second and third weeks were well below normal. On May 10, daytime highs averaged across the province reached only 7.4 degrees, about half of normal. The final week of May saw a return to warm weather, with temperatures rising above normal."

The central region reported the greatest temperature departure, with an average monthly temperature of 8.5 degrees, or 2.0 degrees below normal

The provincial average precipitation of 48.5 mm was only 0.6 mm above the 1961 to 1990 average of 47.9 mm. The central region reported the greatest precipitation departure, receiving 56.5 mm of rain, which is about 24 per cent above normal.

"Pincher Creek was the driest spot in the province, receiving 29.2 mm of precipitation, 41 per cent of normal," says Dzikowski. "Edmonton reported the highest precipitation departure, with 95.8 mm of precipitation, or 224 per cent of normal."

The provincial averages are based on Environment Canada data recorded at 56 locations across Alberta.

Contact: Peter Dzikowski
(780) 427-3594

Animal use in biotechnology and agriculture

The use of animals in biotechnology raises similar ethical issues as the use, management and transport of livestock and animals in agriculture. Dr. Bernard Rollin, professor of Philosophy and Biophysics, Colorado State University and author of several books on biotechnology, recently spoke to members of the Alberta livestock, research and biomedical community on this subject.

"The issues raised by Dr. Rollin were laid out against a backdrop of how the ethics of animal use have shifted," says Michelle Follensbee, technology transfer specialist with Alberta Agriculture, Food and Rural Development, Edmonton. "Traditional ethics were based on good husbandry and the co-dependence of animals and humans. People took care of animals to the best of their ability because animals gave people food, labor, transportation and income. Animals, in turn, were kept under conditions for which they were biologically adapted. Their natural abilities and behaviors were enhanced by people providing care, food, shelter and selection for better survival. This was a win/win for animals and humans."

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Although society has become increasingly urbanized, it has also become very concerned about animal suffering. A new animal ethic has evolved out of the move away from animal husbandry to animal industry. "Traditional ethics have limited application to animal research or highly mechanized, technologically advanced, capitalized, confinement systems," says Rollin. "Intensive confinement systems are not conducive to individual animal care and the environments are designed for productivity rather than adaptability. This means concern for animals is not only about blatant cruelty but about care based on the herd rather than the individual animal."

At the same time, many animal scientists, veterinarians and producers argue that there were many negatives associated with traditional uses of animals and that intensified production has improved the health standards and management of animals.

In particular, three aspects of biotechnology are often debated, that as a science biotechnology is inherently wrong; biotechnology could go wrong despite best intentions; and the concern over the plight of animals used in biotechnology.

An article, *Biotechnology and You – The Farmer* (Manitoba Agriculture), defined biotechnology as the use of living organisms or parts to produce goods and services. A definition used by Alberta Agriculture, is: "Any technique that uses living organisms, or substances from those organisms, to make or modify a product, to improve plants or animals, or to develop microorganisms for specific uses." The use of yeast, a living organism, to produce bread is an example of biotechnology. Genetic engineering, another type of biotechnology, involves transferring genetic material from one living thing to enhance the characteristics of another or develop organisms with specific traits.

"Some ethical debate around the use of biotechnology is no doubt fueled by the different images language creates and a lack of common definitions when discussing the subject," says Follesbee. "Whatever the definitions, many biotechnological processes yield a huge benefit for people. It is important, when discussing products of biotechnology, to weigh the consequences and provide sound reasons before making decisions."

Rollin proposed a guideline for decision making on genetic engineering; the animal created should be as well off as its parents and ideally better off. He also stressed that the only rational approach to resolving issues around the use of animals in biotechnology and agriculture is to involve the public.

A second area of ethical debate is the potential for the best intentions to go astray. With traditional breeding, there is an enforced waiting period that provides the chance to evaluate the breeding strategy. Genetic engineering provides the opportunity to institute rapid change but there is no way to anticipate pleiotrophic effects (the effect of one gene on many traits). There is much to be gained by rapidly improving a genome but also the potential to rapidly proliferate and concentrate undesirable traits. It should be stressed that neither traditional breeding nor genetic engineering guarantees the absence of genetic problems.

The use of cloning can lead to monocultures and a decrease in the genetic pool of a species. Although gene pools have been suggested for preserving genotypes, Rollin argues that this is not a good solution because the genome is not exposed to subtle environmental pressures. The result is a genome that no longer suits the available environment. This has already happened to some species through traditional breeding programs. Domestic turkeys, for example, can't mate naturally due to selection for large breast muscles.

"The biotechnology issue is one of balancing risk and weighing positives against negatives," says Follensbee. "A survey of public's perception on biotechnology issues indicated that people are willing to take risks if they see a benefit. Their main biotechnology concern was ethical. They were concerned about how animal use decisions are made."

Animals' have no voice and it is up to humans to make judgements regarding animal use. Rollin stressed that the public is not looking for a complete ban on animal use but wants assurances that animals are not subjected to needless pain and suffering and that there are reasonable standards of conduct for animal use. People want assurance that livestock producers strike a balance between animal well-being and production targets and they need to know there are mechanisms in place protecting animals from exploitation by large companies involved in research, livestock production and biotechnological manufacturing.

"If animal welfare suffers because of increased productivity or biotechnology, we are not building a sustainable industry," Susan Church, Manager of Alberta Farm Animal Care. "Sustainability is not just about the environment. Another piece of the equation is responsible animal care and well-being, without it we are not sustainable."

Contact: *Michelle Follensbee*
(780) 415-0828

Agri-News Briefs

Reduced tillage field schools

The reduced tillage field schools in Alberta can be visited anytime for a self-guided tour, however, special tour days have been arranged at the Bow Island, High River and Lethbridge sites. There will be lots to see during the field days: opener comparisons, row spacing trials, rolling trials, fertilizer management options, early and late seeding dates for various special crops, dwarf corn demonstrations, weed control demonstrations and the Agronomy Unit fertility research trials The field day activities run from 9:00 a.m. to 1:00 p.m. at all three sites and the dates are:

Bow Island site	July 8
High River site	July 9
Lethbridge site	July 13

For more information, contact Pat Pavan at the Alberta Reduced Tillage Initiative, (403) 327- 9215.

2nd annual Western Suffolk Sire Reference Program sale

Members of the Western Suffolk Sire Reference Program are holding their second annual sale of Suffolk ram lambs and yearling rams on Saturday, July 3, 1999 at the Olds Cow Palace. The day's events include a seminar on Keeping your Flock Healthy by Dr. Ileana Wenger at 9:30 AM, followed by a free lamb barbecue at noon. The Canadian Cooperative Wool Growers will be collecting wool on site all day, and a number of exhibitors are booked into the trade fair, which will also run all day. The sale of performance-tested rams begins at 1:00 p.m. After the sale, one buyer will win a draw for $300 off the price of his or her ram. What makes this sale so different? Performance! All of the rams in this sale will have above-average Lean Growth Indexes. Physical Soundness! All rams will have passed a physical cull for teeth, legs and testicles. Health! Each of the flocks contributing to this sale have had an on-farm veterinary inspection before the sale, and all of rams will be individually inspected by a veterinarian the night before the sale. In addition, all rams in the sale will be blood-tested for Brucella ovis and Ovine Progressive Pneumonia (rams under one year of age will have their dams tested). For further information, contact Dr. Cathy Gallivan at (403) 224-3962 or e-mail <gallivan@telusplanet.net>.

Master woodlot stewardship award

The 1998 Master Woodlot Stewardship Award was presented to H. Pieter van der School of Breton, Alberta on May 3, 1999 Van der Schoot owns and manages approximately 540 acres of forest on a section of land near Breton. His woodlot management activities include small-scale selective harvesting, larger-scale salvage logging and active reforestation. Van der Schoot actively promotes woodlot management and is always willing to show others how he manages his property. The award was presented based on van der Schoot's knowledge of forest resources, his commitment to woodlot management and his interest in maintaining ecological processes for the benefit of many resource values The Master Woodlot Stewardship Award was introduced by the Woodlot Association of Alberta in 1998 to recognize Alberta property owner(s) who exhibit excellence in the management of their private woodlot, to encourage sustainable practices in woodlot management and increase awareness of the importance of sustainable practices on private lands in the province. For further information, contact David Burdek, regional conservation coordinator with Alberta Agriculture, Food and Rural Development, Barrhead (780) 674-8305.

Where land meets water

The provincial Riparian Challenges Conference is being held at the Capri Hotel in Red Deer on October 19 to 21, 1999. The conference title is Where Land Meets Water: Riparian Challenges for the New Millennium. Taking a broad view of riparian areas to incorporate all the land-water boundaries where vegetation is influenced by water, it is a showcase for effective educational resources, key contacts, strategies and tools for enhanced riparian management in Alberta. Conference highlights include: riparian challenges in Alberta and the U.S.; understanding water quality standards; tools for riparian management; Alberta legislation and policies; and, case studies from northern and southern Alberta. It is also an opportunity to network with others. Cost of the conference is $125 (includes GST). For more information, contact Jackie McCall, Bow River Project, (403) 948-8540 in Airdrie, e-mail: <jmccall@cadvision.com> or Michelle McKinnon, Alberta Agriculture, (403) 948-8512 in Airdrie, e-mail <michelle.mckinnon@agric.gov.ab.ca>.

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Agri-News

June 28, 1999

Zero tolerance for purple loosestrife in Alberta

Purple loosestrife (*Lythrum salicaria*) is a tall, woody, perennial plant that has invaded wetlands across North America. It grows quickly, out-competing native plants, resulting in the loss of both plant and animal diversity. In B.C., one site is reported to have spread from three plants to an infestation the size of a house by the next summer! At the Montezuma National Wildlife refuge in the United States, ditches surrounding a 125-hectare wetland had no purple loosestrife plants in 1965. In just over ten years, 90 per cent of the area was covered with the weed.

"Alberta may be one of the few places left in North America that could be free of purple loosestrife," says Shaffeek Ali, weed control specialist with Alberta Agriculture, Food and Rural Development.

Originally from Europe, the weed was first discovered in wetlands in the eastern provinces and states in the 1800s, and in Alberta in 1990. In 1991, the Alberta Purple Loosestrife Management Committee was formed to decide how to deal with the problem. This stakeholder committee includes representatives from the provincial and federal governments, Ducks Unlimited Canada, and fish and game, greenhouse and naturalist organizations.

"Having seen the effects that purple loosestrife has on native plant and animal populations in other areas, the committee decided that Alberta would have zero tolerance for purple loosestrife," says Ali.

The Alberta Purple Loosestrife Eradication Program, headed by Alberta Agriculture, Food and Rural Development, with guidance from the Purple Loosestrife Management Committee, actively works with volunteers, government staff and landowners to make sure that all known infestations of purple loosestrife are monitored and removed each summer. To date there are 114 sites where purple loosestrife can be found in the wild. Over 100 volunteers spend over 2,000 hours digging these plants out of Alberta's wetlands each year. These efforts have successfully reduced the number of escaped purple loosestrife plants by 78 per cent.

"For many years it was thought that some varieties of ornamental *Lythrum* were harmless," says Ali. "*Lythrum* is the scientific name for the genus of plants including purple loosestrife. Researchers in Manitoba produced several varieties that were thought to be sterile, including Morden Pink, Morden Gleam and Dropmore Purple.

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Internet site: www.agric.gov.ab.ca/agrinews Editor e-mail: agrinews@agric.gov.ab.ca

Alberta
AGRICULTURE, FOOD AND RURAL DEVELOPMENT

"Recent research has shown that these so-called "good" *Lythrum* varieties are not as sterile as was once thought. They can cross-pollinate with purple loosestrife (*Lythrum salicaria*), and with each other, to produce viable seed. This poses a serious threat to wetland areas. As a result, nurseries and garden centres in Alberta have discontinued the sale of all ornamental *Lythrum*."

Under the Alberta Weed Act, purple loosestrife is a noxious weed. This means that weed inspectors can issue a weed notice to homeowners with purple loosestrife growing on their land to remove the plant(s). If they don't comply, the weed inspector can have the plant(s) removed and can send the homeowner the bill for the cost of removal.

Purple loosestrife grows to a height of one to two metres and has a square, sometimes octagonal or round, woody stem," explains Ali. "The leaves are five to 10 cm long with smooth edges and grow opposite each other on the stem and occasionally alternately. The flower spike is 10 to 40 cm long and the pinkish-purple flowers have wrinkled petals. The plant prefers wet areas such as ditches, ponds, streams and river backwash areas. Flowering time in Alberta is from late June until the first frost."

If purple loosestrife is growing on a landowner's property:

- dig the plant(s) out before it goes to flower. Make sure to get all of the roots and stem pieces because a new plant can re-grow from even a tiny bit of plant left behind;
- put the plant(s) into a black garbage bag. Make sure the bag does not have holes and never use a clear bag;
- dispose of it by burning, where permitted, or by taking it to the dump and ensuring that it gets covered immediately;
- never compost purple loosestrife. It adapts well to surroundings and the compost pile could well become the next infested area; and
- participate in the Purple Loosestrife Plant Exchange by bringing in plant(s) to a participating greenhouse to trade for an alternative 4-inch perennial at no cost or at a discount. (Some restrictions apply)

The following plants can be grown as alternatives to purple loosestrife:

- Blazing Star (*Liatris spicata*) is a tall, purple plant growing to 1.5 metres. It flowers from mid-summer to early fall.
- Lilies (*Lilium*) come in many colors and forms and can grow to over 1.5 metres tall.
- Spiked Speedwell (*Veronica spicata*) flowers in mid summer, has blue, spike shaped blossoms and grows to half a metre.
- Garden Sage (*Salvia*) is drought tolerant, can grow to 1 metre and has violet, blue flowers.

For a list of greenhouses participating in the Plant Exchange program, or to report an escaped or garden sighting of purple loosestrife, contact: the local weed inspector; the local Agricultural Fieldman; the Purple Loosestrife Eradication Program Coordinator at (toll free anywhere in Alberta) 310-0000 and ask for (780) 427-5341, or email **<cindy.verbeek@agric.gov.ab.ca>**; or, Alberta Agriculture's Roping the Web site: **<http://www.agric.gov.ab.ca/pests/weeds/index.html>**

Contact:	*Shaffeek Ali*	*Cindy Verbeek*
	(780) 422-4909	*(780) 427-5341*

New yard and garden book available

If you need to know what to plant in your yard or garden, how to take care of your trees and shrubs, or how to attract birds and butterflies, Alberta Agriculture, Food and Rural Development has just released the book for you.

Alberta Yards and Gardens: What to Grow is now available for sale at district offices throughout the province, as well as the Publications Office, located in the J.G. O'Donoghue Building at 7000 - 113 Street in Edmonton. The new, 236-page book is an update to the *Alberta Horticultural Guide*, published in 1994.

"The new book builds and expands on the strengths of the old book," says author Shelley Barkley, an information officer at Alberta Agriculture's Crop Diversification Centre South in Brooks.

"It provides the information you need to successfully grow ornamental trees and shrubs, small fruits and berries, vegetables, herbs and even water plants," adds Barkley. "It also includes tips and techniques for wintering roses, pruning, container gardening, water gardening and lawn care."

Barkley explains that the book tries to deal with all the traditional topics, as well as the new trends.

"We've tried to include information on topics I get questioned about through my work at the crop diversification centre," says Barkley. "That's why we included information on water gardening, herb gardening and xeriscaping - - gardening practices that conserve water."

The book features a new 6" x 9" format, with a spiral bind and color charts.

"The new charts are user-friendly and full of new information that the reader will find beneficial," says Barkley. "There are details about flower color and bloom time, landscaping and other uses for plants, height and spread, and specialty features like prominent foliage, fragrance and whether a plant is edible."

Cont'd on page 3

Alberta Yards and Gardens: What to Grow will help both the hobby gardener and the serious horticulturist deal with the extreme growing conditions found in Alberta. It sells for $15 plus GST (add $2 plus GST for shipping and handling). To purchase your copy, contact your local Alberta Agriculture district office or phone toll-free, 1-800-292-5697.

Contact: Shelley Barkley
(403) 762-1305

Don't waste chemical dollars

Provincial pesticide container rinsing surveys identify that only 70 per cent of agricultural chemical containers are returned rinsed and dry to container collection sites.

"In 1998, 1.2 million containers and 18,000 litres of pesticide product were collected from Alberta container collection sites," says Janet McLean, pesticide team leader with Alberta Environment in Edmonton.

"The 18,000 litres represents a loss to producers of up to $200,000 in chemical that never reached the crop," notes McLean.

She says that triple-rinsing each container into the spray tank ensures that producers use all the chemical they paid for.

In addition to producer savings, the container collection program also reduces landfill waste. This is a financial benefit to Albertans through the reduction of municipal expenditures for landfill maintenance.

The container collection program diverts 420 tonnes of waste from municipal landfills each year. This helps extend the lifespan of the landfills and reduces concerns about pesticide residues in landfills that were not designed to handle that type of waste.

Alberta used to have the highest rate of container return in Canada, but based on 1997 collection figures, it's now in fourth place. Other provinces have increased return rates, while Alberta's return rate has remained constant.

After spraying, you can deliver your empty, rinsed containers to your municipal container collection site. All of the material collected at provincial container sites is utilized through heat recovery or recycling programs.

Contact: Janet McLean
(780) 427-9888

Alberta 4-H season kicks off with a day of fun and games

4-H delegates from across northern Alberta have a summer full of activities and learning ahead of them, but they dove into the season with a day dedicated strictly to fun, when the Warthogs and Hornets tied for top spot in a UFA-sponsored softball tournament.

The Second Annual UFA/4-H Slow-pitch Tournament on June 6, 1999 brought together more than 50 delegates from Smoky Lake, Lamont, Minburn and Strathcona for a day of barbecues, meeting new people and softball. Held at the Ukranian Cultural Heritage Village (east of Edmonton) and sponsored by UFA, the tournament is a way for 4-H members to meet new friends and enjoy themselves.

"A lot of the projects and public speaking they do, we want them to learn from. But with this, we just wanted them to have fun," said UFA representative Tim Church.

Players aged nine to 18 years were divided into four teams. Each team was made up of players from the different districts.

"I liked the fact that they mixed the districts around. That way we got to meet different people," said 14-year-old Nathan Taylor. "It was really fun."

Twelve-year-old Leanne Hassey agrees.

"Today was a blast because everybody was here and they participated nicely. The food was great. It was one of the best days ever," notes Hassey.

The two top-placing teams, the Warthogs and the Hornets, finished the day with two wins and a tie each. The Hobos had one win, while the Wolverines didn't manage to win any of their three games.

The games ran in conjunction with the Ukranian Cultural Heritage Village's annual agricultural fair. Lorne Hittinger, manager of the Fort Saskatchewan UFA and co-organizer of the tournament, says that holding it at the Ukranian village offers delegates a chance to see Alberta's history brought to life.

"It's a good thing for young people to look a the Ukranian village, the buildings and settings from the past," says Hittinger.

Church adds that bringing together so many agriculturally-minded people was a natural complement to the displays, plough shows, wagon driving competitions and draft horse displays that were part of the agricultural fair.

"It ties the two events together," says Church. "When mom and dad get tired of watching the ball game, they can watch the plough show."

Cont'd on page 4

He says that 4-H programs go a long way toward keeping agriculture strong in Alberta and across Canada. Given this, it's no surprise that UFA has a long-standing relationship with 4-H.

"I've been with UFA for 21 years and it was well-established then. I'd have to get someone with more grey hairs than me to tell you when it started," says Church of the relationship. "We feel that 4-H is a fantastic program."

Elaine Lyster, a 4-H volunteer who helped organize the tournament, says that UFA's backing is the strongest it has ever been.

"The support is astronomical. They just keep getting more and more involved."

Alberta 4-H members will take part in a variety of activities during the summer. The activities include: educational trips to California, Quebec and Atlantic Canada; environmental programs and camps; and, livestock and craft shows.

Contact:	*Tim Church* *(780) 438-5357*	*Arnold Grandt* *(780) 662-3640*

Take care to avoid hantavirus

All those furry little rodents that waited out winter in your sheds, woodpiles, tractor cabs and maybe even in the comfort of your own home, could be bringing more than cat food to your farm. Mice, specifically deer mice, could be carrying hantavirus.

Although hantavirus is a relatively rare infection, it manages to claim the lives of a few unsuspecting Albertans each year. Most hantavirus victims are from rural areas, often farmers exposed to accumulations of mouse droppings during their spring clean up.

Since 1989, there have been 20 cases of hantavirus reported in Alberta, including six deaths. The virus has already claimed one life this spring.

"We want to remind Albertans to use special care when working or playing in locations that may expose them to rodents, especially mice that may carry the hantavirus," says Dr. Karen Grimsrud, deputy provincial medical officer. "And we recommend people take common sense precautions when cleaning up rodents or droppings."

When cleaning up droppings, disturb them as little as possible. Don't use a vacuum or sweep them while they are dry. The best course of action is to wet them down with a disinfectant. Any household disinfectant will do. Then, gather them into sealed bags to be burned, buried or placed for removal in well-sealed garbage cans.

Wearing protective gear, like rubber gloves and dust masks will also greatly reduce the risk of infection. All clothing worn in a space contaminated with mice or their droppings should be carefully disinfected and disposed of.

The only confirmed carrier of the hantavirus is the deer mouse. Deer mice are reddish brown, or in some cases grey. They always have white fur on the neck, belly, feet and tail. Because it's possible that other rodents could carry the virus, and it's not always easy to determine what type of mouse a person is dealing (particularly when the only evidence is droppings), all rodents should be treated as potential carriers.

If a person is infected, the disease generally appears in one to six weeks after exposure. Symptoms include a sudden onset of fever, body aches and chills, accompanied by difficulty breathing. Anyone who develops severe flu-like symptoms, particularly if they have been in an area contaminated by rodents, should see a doctor immediately.

Although there is no specific cure for hantavirus, treatment in an intensive care unit can minimize the chance of the infection being fatal.

"Hantavirus infection is rare," says Grimsrud. "If affects only a very small proportion of the people who come in contact with mice and their droppings. While it's impossible to avoid all contact with rodents, the risk of hantavirus can be reduced even further by exercising caution."

Contact: *Sandi Walker*
Public Affairs Officer
Alberta Health and Wellness
(780) 427-5207

Focus On 4-H goes at Northlands Park

More than 400 4-H members from the Northwest Region are registered for Focus On 4-H, at Northlands AgriCom in Edmonton, July 2 to 4.

"The first ever Focus On 4-H provides all 4-H members in the Northwest Region the opportunity to showcase their projects," says Jocelyn McKinnon, regional 4-H specialist with Alberta Agriculture, Food and Rural Development.

"The Focus On 4-H schedule is jam-packed. The event features dairy, llama, sheep, horse and beef heifer shows, as well as a judging competition, a canine fun match and a life skills bench show," adds McKinnon.

Life skills projects include: crafts, foods, clothing, small engines, photography, gardening, woodworking, interior design and computers.

Members are encouraged to share their knowledge and ideas by entering displays or doing demonstrations on topics related to their 4-H projects. 4-H'ers can also register for life skills workshops to work with beads, wood or candles.

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The keynote speaker for Focus on 4-H is Alvin Law. Born without arms in 1960, one of Canada's first Thalidomide babies, Law was never expected to be independent. He learned to use his feet as hands and grew up believing in his own abilities and strengths. Law learned he could be whatever he wanted to be. At Focus on 4-H, Law will talk about how anything is possible with a lot of hard work and a proper attitude. Law's talk is scheduled for Friday, July 2 at 6 p.m.

The focus turns to fun for the lip sync contest on Saturday evening. Clubs are encouraged to step into the spotlight and show off their hidden talents with their favorite song. The lip sync contest will be judged on member participation, costumes, props and crowd reaction.

The general public is welcome to attend. It's an excellent opportunity to check out Alberta's 4-H program in and around Edmonton.

Contact:	*Jocelyn McKinnon*	*Flossie Bodell*
	Regional 4-H Specialist	*Volunteer*
	(780) 438-5357	*(780) 662-3640*

Agri-News Briefs

Canola Council of Canada Summer Tours

The Canola Council of Canada has two major summer tours planned for the Peace Region. The first tour is scheduled for Tuesday, July 20, 1999. It starts at 9:00 a.m. at the Wanham Canola Council Production Centre, located 10 miles east of Wanham on the south side of Highway 49. Participants will visit two sites; the production centre and a demonstration site located just down the road. Featured will be intensive field pea management plots, weed control trials on canola and wheat, and several equipment demonstrations. Lunch and registration are provided at no charge. The second tour goes at the Rolla Canola Council Production Centre on Thursday, July 22, 1999. This tour starts at the Rolla Hall at 8:00 a.m. with a complimentary pancake breakfast. The tour lasts most of the day and will visit several sites. Lunch, registration and transportation are provided at no charge. For more information, contact Garry Coy at (780) 694-2027.

Olds College hosts Hort Week '99

For the 35th time Hort Week is being held at Olds College in Olds, Alberta. Hort Week '99 runs from July 18 to 23, 1999. An informative and fun week of short courses, seminars and events is planned. Activities include: a Sunday gardener's forum and market; talks by David Tarrant and Lois Hole; information on water gardening and pond building, commercial floral design schools; arts and crafts information; and, a barbecue. For more information on the numerous courses and seminar being offered, registration costs and event scheduling, contact Olds College Extension Services at 1-800-661-6537 (ask for extension 8344) or (403) 556-8344.

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Agri-News

July 5, 1999

New beef product development project approved

A $1 million beef product development project aimed at improving the marketability of Alberta beef has been launched.

The project, which will focus on creating new beef products through research and partnerships with processors, was announced June 16, 1999 by Alberta Agriculture, Food and Rural Development Minister Ty Lund and Canada-Alberta Beef Industry Development Fund (CABIDF) Chairman Larry Helland.

Funded jointly by the Alberta Cattle Commission's CABIDF, and Alberta Agriculture, Food and Rural Development, the six-year project is geared to building the technical expertise and the research capability necessary to increase beef marketing opportunities for Alberta's cattle producers.

"Recent surveys have shown that today's consumer wants a quality beef product that can be prepared quickly," says Helland.

That trend, along with the development of specialized products for ethnic markets and export opportunities, means changes in both marketing approaches and product development for the entire beef industry.

"The current challenge in Alberta is a shortage of trained personnel to develop new products for these market niches. That's where this project comes in," adds Helland.

CABIDF has allocated $1 million for the initial three years of the project, comprised of $600,000 for new intellectual and technical resources, plus $400,000 for industry-partnered product research to meet a market need.

Alberta Agriculture has extended the project for an additional three years which will ensure that the food scientists hired under this program remain in place for a total of six years. The project staff will be located at Alberta Agriculture's Food Processing Development Centre in Leduc.

"This new research effort represents a tremendous opportunity to increase the consumption and marketability of Alberta beef through new product development," says Minister Ty Lund.

"We are pleased to be able to work with CABIDF to extend the time frame of this research. The project promises to deliver a long-term benefit to the Alberta beef industry by building a pool of product development expertise. Alberta producers are to be commended for their initiative in promoting Alberta cattle beyond the farm gate," adds Lund.

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Alberta AGRICULTURE, FOOD AND RURAL DEVELOPMENT

CABIDF is a $16.4 million fund administered by the Alberta Cattle Commission. It has invested $12.5 million in 46 studies and projects over the last two years.

Contact: *Ty Lund*
(780) 427-2137
Gary Sargent
(403) 275-4400

Larry Helland
(403) 792-2150

Livestock manifest required

Don't have your day spoiled and wallet lightened by getting a violation ticket from the RCMP or local police service for failing to complete a livestock manifest for transporting your livestock.

Summer is here and with it comes an increase in the movement of livestock on Alberta's highways and roads. To assist the police in the investigation of livestock thefts, all people transporting livestock in Alberta by motorized transport are required to complete a livestock manifest and retain possession of that manifest for two years.

The Livestock Identification and Brand Inspection Act of Alberta regulates livestock manifests requirements. It defines livestock as: cattle, horses and game producing animals (bison, elk, deer, etc.).

There are two exceptions where a manifest isn't required. The first is if you are transporting livestock to and from a veterinarian. The second is when a person possesses a Horse Permit obtained from Livestock Identification Services, formerly the Alberta Brand Inspectors.

Horse Permits were implemented for people who transport their horses frequently. They can be obtained through Livestock Identification Services at a cost of $3 per head. For more information, contact:

Lethbridge Area – Don Garriock (403) 381-5180

Calgary Area – Wayne Daye (403) 934-3353

Red Deer Area – Everett Loney (403) 340-5373

Edmonton Area and North – Rod Hines (780) 427-2458

Owners should be aware that Livestock Identification Services must inspect your horses prior to issuing a horse permit. Permit requests should allow adequate notice so that the inspection service can schedule its resources. If the permit is desired in a time period that does not allow proper scheduling, owners will be requested to transport their horses to the brand inspector.

"Of the horses and cattle reported missing or stolen in Alberta in 1998, we haven't been able to recover 93 horses and 1,238 of cattle. With your assistance, we'd like to improve those numbers," says Corporal Ed Turco, RCMP Livestock Investigation Section.

Contact: *Cpl. E. A. (Ed) Turco*
(403) 291-6246

Making barbecue season safe

Summer just wouldn't be the same without the smell of steaks, chicken, chops or big, juicy hamburgers cooking on the barbecue. However, along with all the great things about barbecuing, there's one aspect of cooking outside that all of us can do without – hamburger disease.

"While *baemorrhagic colitis* has been nicknamed hamburger disease, ground beef isn't the only culprit," says Linda St. Onge, a food scientist with Alberta Agriculture, Food and Rural Development. "Undercooked beef, pork and poultry, as well as unpasteurized milk, are all ideal for the growth of the *E.coli* bacteria that is responsible for *baemorrhagic colitis*."

St. Onge emphasizes the importance of careful handling and cooking of all meat, and knowing the dangers.

"I think the general public is more aware of the dangers, and I know retailers and the food service industry pay special attention to the way meat is handled and cooked," St. Onge says.

The disease is a gastrointestinal illness caused by *E.coli* bacteria. The bacteria produces a poison or toxin that damages the intestinal lining, resulting in *baemorrhagic colitis*. Symptoms include: severe stomach cramps, bloody diarrhea, dehydration and a mild fever, two to eight days after eating contaminated food.

Alberta Health's recommendations for treating hamburger disease are very explicit:

- see your doctor if you experience bloody diarrhea
- do not take medication to stop the diarrhea, unless prescribed by your doctor
- drink lots of clear fluids
- in most cases, antibiotics are not useful

In most cases, people notice recovery from the disease in approximately two weeks. In a very small number of cases, the *E.coli* toxin results in a serious, sometimes fatal complication called Hemolytic Uremic Syndrome (HUS). This complication can cause people to suffer from kidney failure which can result in the need for dialysis and eventually, kidney transplant.

"This is especially dangerous to young children, the chronically ill and the elderly," notes St. Onge.

The most effective way to combat *baemorrhagic colitis* is to practice good, hygienic food handling and preparation. The basic food-handling precautions to follow include:

- cooking ground beef and chicken thoroughly so there is no pink in the centre and juices are clear
- checking the internal temperature of larger cuts of meat with a thermometer to make sure it's at least 140°F, the temperature needed to kill the bacteria
- not letting raw or cooked meat sit at room temperature

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- keeping cooked meats hot or serving them immediately
- cooking prepared hamburger patties or other meats immediately, or refrigerating them
- refrigerating or freezing meats as soon as possible after buying
- thawing frozen meats in the refrigerator or in a microwave, not at room temperature
- washing your hands thoroughly before and after handling food and raw meats
- washing all utensils, cutting boards and counters with hot, soapy water to prevent bacteria in raw meats from contaminating other foods
- washing all utensils and plates that have been in contact with raw meats before using them again
- using separate cutting boards for raw meats, cooked meats and other foods (or wash the cutting board thoroughly after each use)
- avoiding unpasteurized milk

"A little bit of extra care with food preparation can go a long way to making sure that we all enjoy the barbecue season," says St. Onge.

Contact: *Linda St. Onge* *The Food Safety*
(780) 986-4793 *Information Hotline*
1-800-892-8333

New resource guide available

Alberta Agriculture, Food and Rural Development's multi-media branch has released its brand-new *Multi-Media Resource Guide*. The guide lists over 500 videos and CD-ROMs that are available for loan.

"This collection represents the most comprehensive assortment of agriculture and food-related audio-visual materials in Western Canada," says multi-media branch information officer Ken Blackley.

"And for this catalogue, we've completely re-tooled our collection, deleting some 300 dated titles and combining many of the old videos into new, comprehensive packages. As well, the new guide also marks our initial foray into the multi-media field through the inclusion of our first seven CD-Rom titles," notes Blackley.

The new catalogue is available from Alberta Agriculture's internet site at **<http://www.agric.gov.ab.ca/ministry/comdv/video/loan/index.html>**. Each of Alberta Agriculture's district video libraries also has a printed copy. A limited number of printed copies are also available through the multi-media branch. You can contact Blackley by calling (780) 422-3951, or by e-mail: **<ken.blackley@agric.gov.ab.ca>**.

Contact: *Ken Blackley* *(780) 422-3951*

Week-long 4-H program aims to build skills for life

Take more than 160 young people, put them together for a week, and what will happen? If the organizers of this year's Alberta 4-H Club Week program have their way, an unforgettable learning experience will be the result

Club Week brings young adults, 15 to 21 years of age, to Olds College from July 20 to 25 for a week of learning, sharing and growth in a non-judgmental environment. Organizers Mark Muchka and Nicol Stone say that delegates can learn skills there that will help them both in their daily lives and in the years to come.

"This is a building block," explains Muchka. "We're not trying to change people. We just want to give them the tools to help them be who they want to be."

Whether they're in small groups discussing issues facing today's youth or all assembled together to hear guest speakers' stories of overcoming adversity, delegates are given an opportunity to see life's ups and downs from different points of view. In this way, they can learn to look at life from different angles.

"Delegates can take the skills and whatever they have learned from the program, and apply it to whatever they may be doing," says Stone. "It's a real exploration and discovery of who they really are. We dive into personal development."

This idea fits in with the theme of Club Week 1999: *It's Not All Black and White*. With this, organizers hope to help delegates look at situations constructively.

"Throughout the week, we're going to be focusing on making the best of the situations that people face. Situations aren't always going to be set in stone; there are grey areas," Muchka says.

"Although delegates are mostly strangers to each other when they arrive, they explore issues together and often develop friendships along the way," says Stone. "It's amazing what the group goes through, from not knowing each other at the start to being very emotional at the end of the week when they have to leave everyone."

By the end of the week, organizers hope the delegates will be able to see a fuller picture of the world around them.

"We'd like to broaden the way they view things. If we can get them to look at things from a different perspective, then we've done our job," adds Muchka.

Contact: *Nicol Stone*
Mark Muchka
(403) 948-8569

Dairy and beef shows challenge 4-H delegates

The future leaders of Alberta's beef and dairy industries will gather to showcase their skills at a pair of back-to-back competitions, set to run in Bashaw and Red Deer.

The 23rd Annual Provincial 4-H Beef Heifer Show, scheduled for July 18 to 20 at the Bashaw Agricultural Society Grounds, brings together more than 300 delegates, ages 9 to 21, from 81 different 4-H clubs.

Participants will show heifers and cow-calf, pairs of various ages, in categories such as conformation, showmanship and freshman classes. All of the animals have been raised by the 4-H'ers. Delegates will also participate in project bowls, industry workshops and judging contests.

The event is sponsored by ABS Canada, Merial, UFA, Gas Alberta and Alberta Treasury Branches.

"This show how well-supported it is both inside and outside of the beef industry," says provincial 4-H agriculture specialist Henry Wiegman. "Alberta Treasury Branches has sponsored the Provincial 4-H Beef Heifer Show for 10 years now. We're able to do all these events through support of volunteer leaders and sponsors."

Immediately after that, the 60 Alberta 4-H'ers involved with dairy clubs will show their animals at the 53rd Annual Provincial 4-H Dairy Show at the Red Deer Westerner Grounds, July 21-22. Participants enter into conformation classes, clipping contests, judging, herdsmanship and showmanship competitions. There is also a dairy quiz to test delegate's knowledge. Sponsored by 35 companies, including this year's title sponsor Gas Alberta, the dairy show runs in conjunction with Red Deer Westerner Days and is expected to draw sizeable crowds.

"Events such as these are a chance for 4-H'ers to show their projects and get some hands-on experience in the livestock field," says Wiegman.

"For all project events we strive at the provincial level to give delegates an experience where they can grow, compete, gain knowledge and enjoy the social aspect," he adds. "They're competitive in nature, but they're skill oriented. The delegates all share a common interest: working with livestock and the livestock industry."

Contact: Henry Wiegman
(780) 427-4532

Be a good neighbor when spraying

In 1998, there was widespread spraying of canola crops because of an outbreak of Lygus bug. The spraying resulted in numerous calls to government agencies, most of which identified a lack of prior notification as a concern.

"People were more accepting of the producers' requirement to spray when they knew what was happening and why," says Janet McLean, the pesticide team leader at Alberta Environment.

She adds that producers should contact neighbors who are immediately adjacent to a field that is to be sprayed. This is done to identify any potential hazards that could affect spraying decisions.

Insect forecasts indicate that spraying may be necessary in some parts of Alberta again in 1999.

Although farmers have the legal right to apply pesticides on their property, Alberta Environment recommends notifying your neighbors several days prior to spraying.

"Notification is simply a good neighbor policy that helps eliminate potential risks," says McLean. "For example, some hazards may not be visible until spray equipment is too close to prevent damage or exposure."

Providing notification 48 to 72 hours in advance allows adjacent landowners to adjust their practices and schedules to better accommodate spraying. For example, livestock and beehives might be moved or otherwise protected. Residents can also be away from the area if they choose, or remain in their homes with their windows closed during spraying.

Neighbors should be advised of the insecticide that will be sprayed, the method of application (ground or air), the pest being targeted, the name of the application service (if a custom applicator has been hired), and any specific precautions that may be important (bee safety).

If residents are concerned about spraying that may take place in their area, they can always take a pro-active approach and ask adjacent farmers about their crop protection plans.

"Notification takes relatively little time and goes a long ways towards promoting good community relations. It's all part of being a good neighbor," says McLean

Contact: Janet McLean
(780) 427-9888

Agri-News Briefs

Farmland values released

According to a recently released Farm Credit Corporation (FCC) report, national farmland values rose by only 0.5 per cent from July 1, 1998 to January 1, 1999. The increase is less than in previous periods. Uncertainty about the Canadian agricultural economy and commodity markets are a few of the reasons noted for the smaller increase. In Alberta, land values are for the most part stable, although they remain strong in areas close to urban centres. These areas include the corridor between Edmonton, Calgary and Lethbridge. Areas of intensive farm operations also feature strong land prices. Most land prices in central and northern Alberta remained stable. Exceptions were in those areas affected by drought in 1998. The drought areas are experiencing a decrease in prices. On a provincial basis, land prices increased by 0.2 per cent during the period. Saskatchewan figures are identical to those in Alberta, a 0.2 per cent increase. In British Columbia, farmland values decreased by 2.9 per cent.

Black current trials expanded

Interest in commercial black currant production in Alberta is on the rise. The result is increased support for black currant trials being conducted at Alberta Agriculture Food and Rural Development's Crop Diversification Centre South in Brooks, Alta. Fourteen black currant cultivars were established between 1995 and 1997. Five of the cultivars fruited in 1997 and 12 fruited in 1998. Funding received from the Alberta Market Gardeners Association Research Trust Fund is making an expansion of the trial possible this year. Work will also be done in the areas of pruning and weed control. A pruning trial is being superimposed on a number of the cultivars. It will evaluate production yields from conventional pruning versus mowing the plants to ground level every two years. Presently, there are no pre- or post-emergence herbicides registered for black currants. The expansion of the industry will require a number of crop protection strategies, including weed control products. With plans to apply for a minor use registration, a number of treatments are now being conducted on newly planted currants.

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Agri-News

July 12, 1999

Grandparents to help create children's farm safety workbooks

Farming is rated the fourth most dangerous occupation in Canada. This year, Alberta's Farm Safety Program is working closely with farm organizations, industry and the health care sector to help bring farm safety messages to farm children throughout the province.

"Grandparents are an important part of farm life; they are a wonderful communication link to the children," says Eric Jones, farm safety specialist with Alberta Agriculture, Food and Rural Development. A page is turning on this millennium and 1999 is ***The Year of the Older Person***, and to celebrate how valuable our older citizens are to all of us, we are inviting Grandparents to participate in developing the first in a series of farm safety workbooks for children."

Every Alberta Grandparents is asked to send in a personal message, drawing, poem, story or song that includes a farm safety message. Everyone who participates in this safety program for farm children will receive recognition in the workbooks.

"We are asking all Grandparents to help create educational farm safety workbooks for children," adds Jones. "The deadline for submission is September 30, 1999."

Grandchildren on the farm are a treasure to hold, admire and love. We hope they hear our messages and walk safely down life's path. This message and program is co-sponsored by Cargill AgHorizons, East Central Health and Alberta Agriculture, Food and Rural Development.

Invitations to participate are available from all local Health Units or by contacting:

Eric Jones
Farm Safety Program
Alberta Agriculture, Food and Rural Development
#201, 7000 - 113 Street
Edmonton, AB T6H 5T6

Contact: Eric Jones (780) 427-4231

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Testing a new soil enhancer

In the County of Grande Prairie, chicken farmer Marcel Mayer was looking for a way to handle and conserve nutrients from chicken manure. Another local business, Ainsworth Mill was looking for a way of making a useful byproduct from woodmill fines residue. Together they are investigating the possibilities of a mixed compost that can be used as a soil enhancer.

"Processing plants use most of the woodmill residue produced for energy and heat, but there is some excess produced each year," says John Zylstra, conservation coordinator with Alberta Agriculture, Food and Rural Development, Fairview. "Mills are always looking for ways to use this excess and prevent the need to burn it. Poultry producers would also like to get more value from the manure produced on their farms. Poultry manure has a high nutrient value with high availability of nitrogen. This joint project could be a single solution to two needs."

The project is being carried out by the County of Grande Prairie and Mayer, with assistance from Olds College, Alberta Agriculture and the Alberta Environmentally Sustainable Agriculture program. "The project is designed to discover the nutrient retention and changes in composting when wood residues and poultry manure are mixed together," continues Zylstra. "It will also answer questions pertaining to proper mixing ratio and the best management process for this type of composting."

Once the compost is formed, further data will be collected to determine what effect the product has on the soil and on crop growth. It is anticipated that the mixture will reduce weed growth after composting.

"Most of the nitrogen will likely be conserved because the starting carbon to nitrogen ration is quite high," adds Zylstra. "The project will help establish how soon the nitrogen is available to the growing crop and what rate of application results in the best yield. This year, Bonnie Clease of the County of Grande Prairie is working with several application rates on a randomized block set of plots. The rates were set using soil test and compost analysis. The follow-up analysis of crop growth and yields will happen this fall, with a further follow-up of crop growth and yields next year."

Contact: *John Zylstra*
(780) 835-2291

4-H tour to highlight agricultural diversity in the north

Twenty-five Alberta 4-H members are about to find out that agriculture is just as much a part of life in Canada's northwest as dog sledding.

From July 19 to 29, the Alberta/Northwest Territories Agriculture Development Tour will give the delegates a first-hand look at the importance and the diversity of agriculture in Canada's northern climates. "It's a chance to show them how people in the far north are farming and how diversified it is," says trip co-organizer Mary Rempel. "They see that there is more involved than just growing wheat and barley."

Sponsored by Alberta Treasury Branches and the Alberta 4-H Program Trust, the tour will take delegates from Edmonton to Yellowknife, with stops along the way to show them the diversity of agriculture in the north. Planned stops include an elk farm, a fish farm, a diversified farm in Hay River in the Northwest Territories, a honey and bees' wax processing operation, and the only egg and poultry operation in the Northwest Territories.

"We're setting up as many possible tours as we can that relate to any part of the agriculture industry," says Darrel Neal, the trip's other co-organizer.

4-H'ers will also have a chance to see some non-agriculture operations, such as dog sled kennels, the Northwest Territories legislature, museums, a Dene village and native arts and crafts. "These stops are a way to show delegates the cultural diversity in their own back yard," says Rempel. "I want the delegates to have fun and experience life beyond their local communities."

For more information on joining 4-H, call (780) 422-4H4H (toll free through the Alberta Government Rite Line at 310-0000) or check out the 4-H web page at **<www.agric.gov.ab.ca/4h>**.

Contact: *Mary Rempel*
(403) 381-5167

Alberta 4-H delegates to visit Eastern Canada

Summer may be prime vacation time, but the two weeks that some Alberta 4-H'ers will spend in eastern Canada this month will be far more than a chance for a little rest and recreation.

Candice Kochan of Flatbush, Connie Whitrow of St. Michael, Diana Kasbohm of Westlock, Virginia Williams of Gibbons, and Bryce Sutter of Hardisty will take part in the Inter-Provincial Exchange this July. Sponsored by the Royal Bank, the trips are part of the Selections program, which sends 4-H delegates to various destinations in Canada and the United States.

Seventeen-year-old Kochan says she hopes to see some of the differences in farming practices between her host and her home province. "We'll probably do a lot of exchanging of ideas," she says. "Because they have such a small area to work with, they'd be in close contact with people every day. You'd have a lot of connections. Even if they have different weather there, we can exchange ideas on how to spray crops, or whatever."

She also hopes to challenge some of the stereotypes that Canadians from different parts of the country have about each other. "I've heard so many things. They think we're just dirt farmers but we think they're all fishermen. This is a chance to gain some worldly experience to eliminate the stereotypes."

Twenty-one year-old Whitrow, who will visit Nova Scotia, wants to see how diverse Canada really is. "Different cultures have different ways of doing things," she explained. "I want to learn about their ways of living and how they interpret that in 4-H."

She also hopes to look at how the different climate and geography affect the occupations available to residents there, as well as look at the extent of technology in Nova Scotia. "How advanced is the Internet there? It's really booming in Edmonton."

Kasbohm, 17, who will go to Ontario, feels that understanding the different regions of Canada is one of the main reasons 4-H organizers and sponsors such as the Royal Bank want delegates to go on trips like these. "Canada is a diverse place. I think the sponsors want us to learn what we take for granted here, and what they take for granted there."

She also thinks the trip will be a good way to look at the different ways people spend their working and their free time. "I hope to see the different things that they do in their spare time. Agriculturally, I think it will probably be smaller and focus more on grain than on cattle like in Alberta."

A long-time fan of the Anne of Green Gables stories, 18-year-old Williams says her trip to Prince Edward Island is right up her alley. But it's also a chance for her to see how 4-H clubs and communities operate in a smaller, less populous province.

"I think there will be less of the beef and horse, which are number one in Alberta. I think it will be more fisheries and life skills," she says. "I also want to learn what kids my age do after school. I come from a fairly large school. How big are the schools there? I want to see what the family and extracurricular activities are like."

Sutter, 18, says he isn't worried about the language difference during his trip to Quebec. "I'm hoping to meet new people. I do speak some French, so I won't be totally out in the blue."

Staying in a rural area three hours east of Montreal will give him the chance to compare agricultural practices in the two provinces. "Out here, there are farms every 5 to 10 miles. Out there, I expect it'll be closer. I expect it to be a lot smaller They won't have as much farmland. We've got a pretty big farm and I want to see how it compares."

Royal Bank spokesperson Brenda Hagel says her institution has supported the Inter-Provincial Exchange for 37 years as part of its commitment to agriculture and agricultural communities. "This has been a national initiative. We support this right across Canada. We hope the delegates have their expectations met from their trips," she said.

Alberta 4-H'ers aren't the only ones getting a first-hand look at Canada's diversity. Delegates from Manitoba, Quebec, Ontario, Nova Scotia and Prince Edward Island are staying with Alberta families as part of the exchange program during the first part of July.

For more information on joining 4-H, please call: (780) 422-4H4H, toll free through the RITE Line at 310-0000 or visit the 4-H website at **<www.agric.gov.ab.ca/4h>**.

Contact: Marguerite Stark
(403) 948-8510

Brenda Hagel
(403) 292-3311

Alberta 4-H'ers to attend Montana gathering

Call it a summer vacation with a twist... the four Alberta 4-H delegates taking part in the Montana Congress July 10 to 18 will do some sight-seeing and a whole lot more when they hit big sky country.

"They'll be meeting new people and learning how 4-H works in other places," says Elaine Babenek, who will be chaperoning the delegates during the journey. "It's also a chance to learn teamwork and to work with different people, and to organize events. They have workshops and seminars so the delegates can sharpen their leadership skills and take some initiative."

Cont'd on page 4

Since he's considering a career in advertising, Randy Butler of New Norway thinks the leadership training will benefit him down the road. "I'm hoping it'll be a good chance to learn about being a leader and will teach us how to lead small group activities," he says. "I think it will also help out with our communication skills – that's pretty necessary."

April Mappin of Byemore says these programs give 4-H'ers more than they realize. "Anything you do, you can use in everyday life. Public speaking comes in handy, so does working with younger club members," she says. "You don't realize you're using it, but if you sat down and thought about it, there's a lot you use. You always seem to get that from 4-H."

The trip will also be a chance for Alberta 4-H members to see how Montana 4-H clubs operate. Mandy Wasdal of Endiang is looking forward to meeting the Montana delegates. "It will be interesting to see the variety of projects Montana has, and to tell them about what we have," she says.

The delegates were awarded the trips through the Selections program, which offers educational tours and exchanges to 4-H members across Alberta. Justin Binks of Sexsmith took part in the Selections banquet last year, but elected not to go on any trips. When he went to the banquet this year, however, he knew right away which exchange he wanted to go on.

"The Montana trip kept calling my name," he says. "I want to learn more about that part of the country. It's also a chance to learn to interact with a large group of people. You learn how to adjust your ways with their ways and how to get along with people."

The tour, sponsored by the Bank of Montreal and Alberta 4-H Programs Trust, also offers delegates a chance to take in some history and sightseeing along the way. Stops at Head-Smashed-In Buffalo Jump, Waterton Lakes National Park, Lewis and Clark Caverns and Yellowstone National Park have all been scheduled in around the congress.

For more information on joining 4-H, call (780) 422-4H4H, toll free by dialling the RITE line at 310-0000 first, or visit the 4-H website at <**www.agric.gov.ab.ca/4h**>.

Contact: Colleen Prefontain
(780) 961-2403

Elaine Babenek
(780) 724-2345

Native prairie videos prove popular

A pair of new videos, produced by Alberta Agriculture, Food and Rural Development's multi-media branch, is drawing a lot of attention right across the province.

"Our native prairie has almost disappeared from the landscape due to urbanization, agricultural expansion and the introduction of non-native plants to the eco-system, " says multi-media branch information officer Ken Blackley. "Many people are troubled by this and are looking for information about how to reclaim and restore native grassland communities."

In an effort to provide current and accurate information, the multi-media branch teamed up with the Public Land Management branch to produce two unique videos.

"The first of the two tapes, *Restoring Our Native Heritage*, looks at the factors that go into restoring a piece of land back to its native condition. It also provides lots of good ideas that will help make your restoration project go as smoothly and efficiently as possible," explains Blackley.

The second video, *Reclaiming Native Prairie*, looks at doing a reclamation project.

"Industrial activity on public land often involves stewardship of the native prairie. Drilling and pipeline construction permits can require the operator to reclaim the disturbed land and bring it back to a natural state," says Blackley. "This video outlines the steps involved in this and the pitfalls to watch out for."

Both videos are available for purchase from Alberta Agriculture's Publications Office, 7000-113 Street, Edmonton, AB, T6H 5T6 or by calling 1-800 292-5697. *Reclaiming Native Prairie* costs $20 (plus GST). *Restoring Native Prairie* costs $15 (plus GST). Add $2 for shipping and handling (plus GST). VISA and MasterCard are accepted.

Contact: Ken Blackley
(780) 422-3951

Controlling horn and face flies

Summer is in full swing and beef herds have moved onto summer grazing pastures. One of the factors that can reduce possible weight gain in grazing cattle involves insect pests, horn and face flies to be specific.

"Horn and face flies are irritants and when their numbers reach threshold levels, economic losses and possible diseases can result," says Bill Grabowsky, beef specialist with Alberta Agriculture, Food and Rural Development, Wetaskiwin. "Horn flies suck blood from their hosts while face flies probe the eyes, mouth and nasal areas of beef animals for mucous secretions. Their constant, irritating activities generally start in June and increase as the season progresses in July and August."

For cattle, 50 or more face flies per head will cause economic loss because of reduced animal condition. When horn fly numbers reach 40 per head, treatment is warranted to prevent performance and productivity losses.

"Horn flies can be recognized by their heads-facing-down position as they rest and feed on the backs and shoulders of cattle. These flies swarm when disturbed," continues Grabowsky. "Face flies usually feed in small numbers at any one time. Both these pests lay eggs in freshly, dropped manure and the pupae survive over winter."

Methods of control mostly involve the use of chemicals, but sanitation is important also. Removal of manure and wet, decomposing feed will reduce the egg laying areas necessary for both species.

"These two fly pests have been troublesome to cow/calf and grass cattle producers but control is available. Two chemical classes of insecticides are available for control," says Grabowsky. "Each class gives good control on horn flies but only fair control on face flies.

Organophosphates and pyrethroids are the main ones used. To date, no resistance has been found with the organophosphates, however some horn fly resistance can be found with pyrethroid use.

"Both of these chemicals can be placed or impregnated into ear tags that are then placed in cattle ears as usual. Some new work is being done to monitor the effectiveness of placing both insecticides in one ear tag on Alberta cow herds. It is a good management practice to alternate chemical classes of insecticide each year."

Back rubbers, dust bags and sprays can also be used to control pests. Strategic placement of these methods of control near water and salt/mineral sights greatly enhance control measures. Producers should consult their veterinary clinic and feed stores for the latest, approved chemical products.

Contact: Bill Grabowsky
(780) 361-1240

Celebrate the flavors of youth at an Old Fashion Berry Festival

The Devonian Botanic Gardens (DBG) and the Fruit Growers Society are joining together to present the second annual Berry Festival on July 18, 1999 from noon until 5:00 p.m at the Devonian Botanic Gardens

"Activities at the festival include: berry tasting, cooking demonstrations that start at 1:00 p.m., musical entertainment and fun projects for children," says Nadine Stielow, an executive director with the Fruit Growers Society. "Crafts, native fruit trees and berry inspired foods will be offered for sale. The festival, a celebration of Alberta's berries, is ideally located at the DBG, just minutes from West Edmonton Mall on highway 60, north of Devon."

One berry that will be heavily represented at the festival is the Saskatoon berry. Saskatoons are a native prairie fruit. Many people remember smelling the fragrant white flowers in the spring and picking the tart, dark, purple fruit in July with their grandparents. Its sharp flavor and deep rich color makes excellent spread, jams, pie fillings, sauces, chocolates, desserts, muffins, liqueurs, juice and wine! The festival is a chance to step back into youth and introduce the family to the wonders of the Saskatoon.

"The Saskatoon is an abundant berry unique to the prairie provinces. Saskatoon u-picks are sprouting up all over Alberta, with more that 120 berry u-picks across the province," says Stielow. "There are almost 2,000 acres of Saskatoons planted in Alberta with over 700 of those acres producing fruit."

The Fruit Growers Society of Alberta plays an active role in research and education of Prairie native fruit growers. Join the Fruit Growers Society of Alberta as it joins forces with the Devonian Botanic Gardens to pay tribute to the Saskatoon at this old-fashioned family festival

"The DBG also offer families 80 acres of gardens and 110 acres of nature trails," says Linda Hewitt, DBG. "The festival is an excellent opportunity to visit the gardens and enjoy an afternoon at the Devonian Botanic Gardens."

Contact: Nadine Stielow (780) 998-0481
Linda Hewitt or Don Sprigings (780) 987-3054

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Agri-News Briefs

Environmental summer camp

For more than 20 years, the Alberta 4-H Centre, Battle Lake, has offered young Albertans a place to spend a week filled with activities during the summer. The 143 acre Centre is home to over 100 species of wildlife. It is a place where young people can explore 65 million year-old bedrock and hike through trails of fern glade forest. This natural lakefront property is a place where children can really appreciate their environment. A week of fun activities, such as swimming, group games, creative crafts, hiking, camping skills, canoeing, nature studies, initiative games, leadership skills, archery and campfires, can be enjoyed in a safe, natural setting complete with home cooked meals, hot showers and warm bunks. Qualified and experienced certified staff deliver the program and supervision is provided 24 hours per day. The all inclusive registration fee for the program is $159. For more information or to register for the Environmental Summer Camp, contact the 4-H Foundation of Alberta at (780) 427-2541, fax (780) 422-7755 or e-mail <**danielle.warren@agric.gov.ab.ca**>.

New Canadian consumption figures

Statistics Canada recently released 1998 consumption data that reports beef consumption at 49.4 pounds per person per year, retail weight. This figure is down slightly from the 1997 consumption figure of 49.8 pounds per person during the year. Pork per capita consumption in 1998 was 45.2 pounds, retail weight, up 2.6 pounds from the 42.6 pounds per person in 1997. Chicken consumption is reported on a carcass basis at 57.5 pounds for 1998, up 1.4 pounds from 1997. When reported on a boneless basis, consumption is: beef 46.8; pork 42.3; and, chicken 34.4 pounds per person. For further information, contact Statistics Canada or visit their website at <**http://www.statcan.ca**>. The 1998 consumption data can be viewed at <**http://www.statcan.ca/Daily/English/990616/d990616c.htm**>

Grey wooded pasture survey results

In early 1999, the Grey Wooded Forage Association (GWFA) conducted a pasture survey within its membership. Results of the responses include:

- total 31 pasture lease responses – 14 from pasture owners and 17 from cattle owners;
- of the 31 responses – 18 were cow/calf and 13 were yearling owners;
- pasture owners average charge for cow/calf pasture was $19.29 (varied from $22 to $14 per cow/calf unit);
- cattle owners reported that they were charged on average $19.45 per cow/calf pair (varied from $25 to $14 per cow/calf pair);
- yearling owners were charged on average $16 per head per month. The pasture owners charged an average of $12 per head per month or $0.39 per pound of gain;
- only 6 of the 31 responses state that they fertilize pastures (6 responses); and,
- the majority (87 per cent) of pasture leases implemented rotational grazing systems.

For further information, contact Kyle Greenwood at the GWFA at (780) 845-8203.

Constructing dugouts for fish

Dugouts provide stored water for a variety of purposes in Alberta. They are used as a source for domestic water supplies, livestock watering and for raising fish for fun or for profit. Aquaculture is a growing industry in Alberta and, as with any industry, there's lots of information that should be checked and considered before beginning a business venture. One of the first considerations is site selection. Before any dugout construction is started, proper planning and design must take place. Albertans interested in or considering aquaculture can pick up a new factsheet, ***Constructing Dugouts for Fish*** (Agdex # 485/716-1) at any Alberta Agriculture, Food and Rural Development district office or at the Publications Office, main floor, 7000 - 113 Street, Edmonton, AB T6H 5T6. The factsheet contains information on site selection, size and capacity, design and construction, impervious lining, dugout aeration and dugout maintenance. For further information on aquaculture in Alberta, contact the aquaculture section of Alberta Agriculture at (403) 381-5870, Lethbridge.

Agri-News

July 19, 1999

Conference on weed management in Lethbridge

The North American Weed Management Association (NAWMA) is hosting its 7th Annual Conference and Trade Show in Lethbridge, on August 9 to 12, 1999. This is the first time the conference will be held in Canada and the theme is ***Breaking Down the Borders***.

"The four-day agenda is packed with international issues and excellent speakers," says Shaffeek Ali, weed control specialist with Alberta Agriculture, Food and Rural Development, Edmonton, and one of the conference committee heads. "The conference begins with the Board of Directors' Meeting followed by separate committee meetings and the opening of the Trade Show. The Minister of Alberta Agriculture, Ty Lund and President of NAWMA, Brent Meyer will both be in attendance at the conference. Don Schmitz, Florida Department of Agriculture, will be giving the keynote address, Breaking Down the Borders, on Tuesday morning. A discussion of the differences and similarities in the Canadian and US weed management structures follows."

"Field tours have been set up for August 11th at the Lethbridge Research Station, Alberta Farm Machinery Research Centre, and the Monsanto Research Farm," adds Tim Dietzler, who also heads the conference committee. "There will be a tour of an intensive livestock operation and a herbicide application equipment demonstration."

On August 12, Janet MacLean of Alberta Environment presents ideas for better standards through industry/government liaison and an update on the cooperative weed management programs in Alberta. There is also be a presentation from U.S. participants on the necessity of a standardized weed mapping system will follow.

For more information on the conference, a copy of the agenda or a registration form please contact Shaffeek Ali at (780) 422-4909 or Tim Dietzler at (403) 230-1401.

Contact:	*Shaffeek Ali* *(780) 422-4909*	*Tim Dietzler* *(403) 230-1401*

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Alberta
AGRICULTURE, FOOD AND RURAL DEVELOPMENT

A website designed to help businesses start and grow

Launching and operating a successful business requires solid business practices and market planning. Alberta Agriculture, Food and Rural Development has developed numerous resources to encourage business growth and expansion.

"Alberta Agriculture is launching another resource," says Joyce Lencucha, agri food development specialist with Alberta Agriculture, Food and Rural Development, Red Deer. "This expanded and improved resource can be checked out by visiting the ***Business Development*** site on the Alberta Agriculture webpage at **<www.agric.gov.ab.ca/bizinfo>**."

The site was developed in co-operation with Agriculture Financial Services Corporation by a multi-disciplinary team of staff to help meet diverse client needs. It is designed to assist perspective and emerging agriculture and food processors with helpful business and marketing information.

"There are sections that help explore an individual's entrepreneurial spirit, and the feasibility of business ideas," adds Allan Pelletier, development officer with Alberta Agriculture, Edmonton. "A directory of sites link the user to other webpages where they can get up-to-date information on government regulations including food safety, labelling and licensing. An extensive section provides information on financing. The export section, answers questions such as, Are you export-ready? A guide to services and support for small businesses is also included. The site also includes information and ideas to help Albertans develop a business plan."

Many of Alberta Agriculture's other resources can be accessed from this site. A new section ***Business Basics for Alberta Food Processors*** includes information on both the technical and business aspects of a food business. While 'on site' with Alberta Agriculture, check out ***Starting and Growing your Business: Agriculture and Food***.

"The site is new and will be updated continually," says Lencucha. "Any suggestions for improving either the site's content or usefulness would be appreciate."

For more information contact Joyce Lencucha, agri food development specialist, Red Deer, (403) 340-5358; Allan Pelletier, development officer, Edmonton, (780) 422-2591; Jean Wilson, business specialist, Edmonton, (780) 415-2146, Jim Cooper, Agriculture Financial Services Corporation, Camrose, (780) 679-1703; Marian Williams, rural development specialist, Camrose, (780) 679-1210 or Doug Barlund, business management, Olds, (403) 556-4245.

Contact: Joyce Lencucha
(403) 340-5358

Well contamination

One of the most important resource on a farm is the well. It is also the most misunderstood resource and is often taken for granted.

"Any neglected resource is a candidate for contamination," says Ken Williamson, agricultural water specialist with Alberta Agriculture, Food and Rural Development, Red Deer. "The biggest contamination threats come from things that are walked past on a daily basis."

Poor well construction – the fastest way to contaminate groundwater is to drill a poor quality well. Inadequate surface casings or formation seals can allow surface water to seep along the outside of the casing. Poor wells drilled through multiple aquifers can mix water from the various formations. The best protection is to have a well drilled by a qualified, conscientious driller.

Old wells – poorly constructed older wells or those that have rusted out casings can contaminate good wells. Old wells need to be properly plugged from the bottom to the top with bentonite or cement grout.

Pump pits – can act as a funnel for contaminated surface water or shallow groundwater to enter a well, especially during spring flooding conditions. Pump pits should be replaced with pitless adaptors, or have a sanitary well seal installed.

Hydrants installed in a well or well pit – can produce a back-siphon that will draw contaminated water down the well. Hydrants should be removed from these locations or have anti-siphon valves installed to reduce the risk.

Poor sewage systems – leaking septic tanks or cesspools will contaminate shallow wells.

Seismic shot holes – poorly plugged shot holes can be a direct conduit for surface water into the groundwater. Regulations, which were incorporated in 1998, require that shot holes be plugged to a depth of one metre with at least 40 centimetres of approved material, such as bentonite, on top of the plug. Above the bentonite, at least 60 cm of drill cuttings must be tamped in.

Over-application of manure – when manure is applied to land at a greater rate than will be used by growing crops, the result can be nitrogen leaching into the groundwater. Soil sampling is a good management tool that producers should use to determine the proper amount of manure to apply.

"Getting a good supply of fresh, clean water from groundwater is a process that can't be taken for granted," adds Williamson. "A water well requires proper planning, construction, management and maintenance."

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To assist landowners, a video series Water Wells That Last, is available. The series contains three videos; Planning and Construction ($10 plus GST); Managing and Maintaining ($10 plus GST); and, Shock Chlorination ($20 plus GST). The videos can be bought separately or as a set for $40 plus GST.

The videos are available from all Alberta Agriculture district offices and from the Alberta Agriculture Publications Office, 7000 - 113 Street, Edmonton, AB T6H 5T6, or by calling toll free 1-800-292-5697. VISA and MasterCard are accepted.

Contact: Ken Williamson
(403) 340-4896

5th Annual Provincial 4-H Horse Classic

At the 5th Annual Provincial 4-H Horse Classic program later this month, approximately 150 participants will bring their horse-sense – but not their horses.

Horse Classic, July 28 to 30 at Olds College, is a knowledge and skills-based program that gives Alberta 4-H'ers a chance to show what they have learned at club-level horse projects.

"Participants have to know their material and don't get any coaching from parents or leaders during the competition," says Dwayne Grover, 4-H Equine Advisory Committee Chairman. "They have to have done their studying at home and have to have some experience judging horses and different breeds of horses. They have to know the books. All the materials are provided for them, but they've got to study and know it all."

Among the activities at Horse Classic are the Horse Bowl Contest, which tests teams on their grasp of a wide range of equine-related topics; an Illustrated Talk Contest, where delegates demonstrate their knowledge through presentations and lectures; and, the Hippology Contest, in which all 4-H delegates attending Horse Classic participate. This competition tests delegates' understanding of horses and related topics though quizzes, identification questions, judging competitions, knowledge-station tests and team problems.

Sponsored by Gas Alberta, UFA, Lammle's Western Wear, Burwash Horse Gear and SSG, the Horse Classic is open to delegates aged 9 to 21. "This year has seen the largest number of young delegates entering the competition," says Grover.

The top four delegates over the age of 15 qualify for the Western Round-Up Horse Competition in Denver, Colorado later in 1999, which is what many delegates strive for.

"Once they get a little older, they're really shooting for that trip to Denver," adds Grover. "Although the Horse Classic is only in its fifth year, participation has tripled from what it was at the outset of the program. There are some people who have been there every year, but it seems that we're always getting new participants also."

For more information on joining 4-H, call (780) 422-4H4H, toll free through the RITE line at 310-0000, or visit the 4-H website at <**www.agric.gov.ab.ca/4h**>.

Contact: Dwayne Grover
(403) 742-5528

Henry Wiegman
(780) 427-4532

Salvaging hailed crops for livestock feed

The July thunderstorm season always results in some low-quality cow feed from crops that were intended for another purpose. The question that often arises is what is the potential for nitrate poisoning when feeding hail-damaged crops. The short answer is that the risk of nitrate poisoning can be high if precautions are not taken in harvesting and feeding. The good news is that effective measures can be taken to reduce the danger to livestock.

"First, an understanding of how nitrates accumulate in the plant and how livestock are affected is useful," says Lorne Erickson, forage specialist with Alberta Agriculture, Food and Rural Development, Rimbey. "Nitrate movement from the soil into the plant is part of the normal growth process. When the plant is actively growing it is able to convert the nitrate into protein and other nitrogen compounds at the same rate it is absorbed. If the crop is damaged by hail, frost, drought or herbicides, the plants cannot keep up with the nitrate absorption and the nitrates will accumulate."

This nitrate accumulation can be toxic to livestock, particularly if the crop is harvested and stored when levels are high. Ruminants (cattle, sheep, goats) are more susceptible than are monogastrics (horses, pigs) and cattle are the most at risk. Nitrate poisoning can cause a number of problems ranging from reduced gains to abortions and even death.

"In general, cereal crops and weeds are more likely to accumulate dangerous nitrate levels than are grasses or legumes, although the risk diminishes as the crop matures," says Erickson. "Nitrate levels will be higher in damaged crops that have had a heavy application of nitrogen fertilizer or manure. An immature oat crop on fertile soil is the most likely to have high nitrate levels following hail or frost."

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To reduce the risks of harvesting a high nitrate crop, it is usually best to harvest the crop very soon after the hail storm, before nitrates have had time to build up and while plant quality is still good. Often it is too wet to get on the field for a few days and if the weather is cool and cloudy and plant leaves are severely damaged, the nitrate level could be extremely high after three or four days. In this case, waiting a week or more could reduce nitrates as plants either die back or resume growing and using nitrate. Each field must be carefully checked to determine what growth potential remains and to estimate it's ability to utilize accumulated nitrates.

"If grazing is the best way to salvage a hailed-out crop, be sure animals are full before turning them out, and initially only allow them to graze the damaged field for two or three hours each afternoon when nitrate levels are the lowest," adds Erickson. "If nitrate levels are suspected to be extremely high, grazing might be the best option because nitrates are released more slowly than in dried feed and livestock will consume fresh forage much more slowly."

The choice of harvesting method, bales or silage, should be based on storage and feeding management. Nitrate levels are not likely to diminish once the feed is stored unless it's put up in poor condition and suffers a lot of spoilage. Nitrate levels may drop to some degree in the windrow if the crop is quite lush when cut and dries slowly before baling. Rain on the windrowed feed will also help to reduce nitrate levels.

"It is important that hail-damaged feed be stored separately, tested for nitrates and fed in combination with low-nitrate feeds to reduce the risk of poisoning," concludes Erickson.

Contact: Lorne Erickson
(780) 843-2201

June cool and on the dry side

Alberta had below normal temperatures and precipitation in June.

"Average growing degree-days above 5 degrees C were about 85 per cent of normal," says Peter Dzikowski, agriculture weather resource specialist with Alberta Agriculture, Food and Rural Development, Edmonton. "For most parts of Alberta, this was equivalent to a June with only 26 growing days. This suggests crop maturity will be delayed, unless we get really hot weather in July."

The provincial average temperature of 12.9 degrees C was 1.6 degrees below the 1961 to 1990 normal of 14.5 degree C.

"All agricultural regions reported below average temperatures," continues Dzikowski. "The central region had the greatest temperature departure, with an average monthly temperature of 12.4 degrees, or 2.3 degrees below normal. Rocky Mountain House reported the greatest temperature departure, 3.6 degrees below normal."

The provincial average precipitation of 63.4 mm was 86 per cent of the 1961 to 1990 normal of 74.1 mm, and 64 per cent of the 99 mm reported in June, 1998.

"The Peace, north east and north west regions reported below normal precipitation," adds Dzikowski. "Precipitation in central regions was near normal, and precipitation in southern regions was slightly above normal. Camrose reported the greatest precipitation departure, with 12.2 mm of precipitation, only 15 per cent of normal."

The provincial averages are based on Environment Canada data recorded at 56 locations across Alberta. Further information on Alberta weather can be viewed on the Alberta Agriculture web site at <**http://www.agric.gov.ab.ca**>.

Contact: Peter Dzikowski
(780) 427-3594

Agri-News Briefs

Tour Wetaskiwin & Ponoka

A joint tour hosted by the County of Ponoka, County of Wetaskiwin and Alberta Agriculture, Food and Rural Development is being held on July 27, 1999. Buses will leave both county offices at 9:00 a.m. for a tour that includes a mix of crop, livestock and conservation alternatives. Participants will have the opportunity to see operations and discuss production with local farmers who are trying out silage corn, grazing corn, winter cereals, mint production and timothy for export. On the livestock side, grazing alfalfa, planning a feedlot and manure management will be featured. Sponsors for the tour include: Country Junction Fuel Feed & Agro, Schering-Plough, Alberta Treasury Branches, Bigstone Agro and PFRA. Registration fee is $15 per person (includes GST). Pre-registration is required at one of the following:

Alberta Agriculture, Wetaskiwin office	(780) 361-1240
Wetaskiwin County office	(780) 352-3321
Ponoka County office	(403) 783-3333

Sustainable development ecological economics conference

The Canadian Society for Ecological Economics (CANSEE), International Centre for Sustainable Global Development, Canadian Plains Research Centre and Saskatchewan Environment and Resource Management and others are sponsoring a conference from August 27 to 29, 1999 at the Luther College, University of Regina, Saskatchewan. The conference theme is Nature, Wealth and the Human Economy in the Next Millennium. Issues that will be addressed include: limitations of some modern economic beliefs; how society reconciles economic development with environmental protection; current economic theories on production; the pressure resulting from a rapidly growing human population; the decline in productive lands, forests, natural habitats and biodiversity; economic growth and free markets. The conference will appeal to anyone interested in integrating economic and environmental issues and decision making. Private sector, business, industry, universities, government and non-government organizations are invited to attend. For further information or to be placed on the conference mailing list, contact Dr. Paul C. James, chair of the CANSEE conference planning committee, (306) 787-9058, Regina, Saskatchewan, fax (306) 787-9544, or e-mail **<paul.james.erm@govmail.gov.sk.ca>**.

Poultry workshop

The 24th annual Poultry Service Industry Workshop (PSIW) is being held at the Banff Centre, Banff, Alberta on September 28 to 30, 1999. The mission and purpose of the workshop is to influence the progress and profitability of the poultry industry by providing proven, practical and up-to-date technical information to the poultry service industry. The PSIW is an institution that collectively possesses a high level of service expertise and provides an opportunity for effective networking among experts and service personnel. The workshop provides a forum for airing technical and related problems that affect the poultry industry. Some of the subjects covered at the workshop include: successful vaccination and immune response and suppression; antimicrobial use in agriculture; benefits of Probiotics and litter treatment; rapid test kits and techniques and antimicrobial spray interventions in processing plants; sustainability and intensive livestock farming; scientific methodology for problem solving; and, disease problems in the west. Registration is $50 per person before August 19, 1999 and $70 per person after that date. For further information, contact Sandy Clarke or Shirley Sommert-Ogden, (780) 415-6107, fax (780) 427-1439.

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AESA soil quality resource monitoring program

Soil quality has been a concern of the government and public for some time. While assessment of soil quality is difficult, it is necessary as it addresses many issues such as productivity, environmental quality and ecosystem function.

"Initiatives in soil quality monitoring under the Alberta Environmentally Sustainable Agriculture (AESA) Soil Quality Resource Monitoring Program may help develop methods to assess soil quality," says Karen Cannon, conservation and development research agrologist with Alberta Agriculture, Food and Rural Development, Edmonton. "The AESA Soil Quality Program has two objectives, first is to determine the current state of soil quality on agricultural lands in Alberta and second to determine the risk of change in soil quality with various management practices productivity."

In order to address these objectives, databases need to be developed for use in models to determine soil quality changes and changes in soil quality with different agricultural scenarios for Alberta. Modeling efforts are needed to create wind and water erosion risk maps, salinity hazard maps and a soil quality assessment system. A provincial soil quality benchmark monitoring program was designed and implemented to provide baseline soil information on a range of soils across Alberta, and to provide a data set to test and validate the modeling efforts. This data set will also provide information on how soil quality parameters are affected in different parts of a landscape.

"The focus of the soil quality monitoring program in 1998 was to complete the necessary provincial databases needed for analysis and modeling," says Cannon. "Some of these databases include climate, digital elevation model (DEM) data, land use and practices, fertility and organic matter. The soil quality assessment system will be developed with information from modeling efforts, such as erosion and salinity risks, along with soil information databases which provide climate, yield/ productivity, fertility, and soils information."

Development of a long-term province-wide network of benchmark sampling was started in the fall of 1998 to monitor soil quality across Alberta landscapes. The 41 benchmark sites were chosen to be representative of the soil-landscape patterns

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and agronomic practices within a given ecodistrict. At each benchmark site, sampling continues to be done at each of three landscape positions, upper, mid and lower slope positions.

"Plant samples are taken annually at harvest time to determine total biomass and crop yields," adds Cannon. "Soil fertility sampling occurs each fall, after harvest of the crop. Soil data collected in fall of 1998 indicated there is a lot of variation in measured soil parameters within and among landscape positions. Statistical analyses are required to determine if there are significant differences between slope positions and between eco-regions for the fertility samples. These analyses have just been completed and a report is underway."

The focus for 1999 is the development of the capability to map predicted soil quality changes under various climatic, land use and management scenarios. Mapping of this data will require the combination of monitoring and modeling with geographical information systems (GIS) and the soil quality assessment system which is being developed.

Contact: Karen Cannon
(780) 427-3432

New food safety program

The Hazard Analysis Critical Control Point (HACCP) system is an internationally recognized quality assurance system that focuses on producing safe food. With HACCP, hazards associated with ingredients and process steps for food manufacture are identified and on-line control measures are used to prevent or minimize hazards from occurring. Many Alberta processors have asked how a HACCP is developed and implemented.

Alison Poon of Alberta Agriculture, Food and Rural Development's Food Quality Branch, Edmonton, says, "Having a well-designed food safety program is a responsibility of anyone who produces or distributes food. Food processors already know that there are many reasons why producing safe, high quality food products is important. Foods not handled properly can lead to serious food-borne illnesses and can result in negative publicity, law suits, damage to trade, unemployment and loss of business. With increased free trade, having a safe food supply can also mean a competitive advantage and increased access to domestic and international markets."

Poon is coordinating a cost-effective Food Safety Counselling Program that has been formed in partnership with the Alberta Food Processors Association (AFPA), to enhance the awareness, training and adoption of food safety practices and programs for Alberta processors. Funding support has been granted for the Canadian Adaptation and Rural Development Fund (CARDF) and the Alberta Value-Added Corporation (AVAC) Ltd. to provide services to the industry that includes HACCP program development counselling, food safety workshops and training of production, frontline staff.

HACCP program development counselling is designed to work closely with processors to assess what information is needed regarding food safety issues and program development; to review the current status of any existing food safety programs; to provide technical and analytical support to resolve food safety and quality issues; to provide trained personnel for consultation in developing a structured, defined HACCP program according to the Canadian Food Inspection Agency's Food Safety Enhancement Program (FSEP); and to audit the new HACCP program for completeness.

Food safety workshops are being offered for processors to work with the food safety team to: assess present knowledge of employees and suggest types of workshops regarding food safety issues and program development tailored to an individual business; and to provide customized in-house education and training for executives, the HACCP team and line personnel about the benefits of a HACCP program and the role of all employees in food safety and HACCP program implementation.

Frontline HACCP training provides processors with the tools necessary to train production, or front-line staff who may have limited English and/or literacy skills. These workers will acquire the knowledge, skills and attitudes to be followed to support production of safe food through training materials that are highly visual and are of limited text. Funding support for Frontline HACCP from Alberta Workforce Essential Skills (AWES) Committee is gratefully acknowledged.

Contact: Alison Poon
(780) 415-4513
email: alison.poon@agric.gov.ab.ca

Women of Unifarm lead agency for CASP

Women of Unifarm, a non-profit rural and farm women's organization have accepted the responsibility to serve as Alberta's provincial lead agency for the four-year Canadian Agricultural Safety Program (CASP). CASP is guided by the Canadian Coalition for Agricultural Safety and Rural Health.

"The federal government is providing $1 million per year to non-profit organizations for projects at provincial and national levels focussing on agricultural safety and rural health," says Shirley Dyck, Alberta Lead Agency Coordinator with Women of Unifarm. "The prime objective of the CASP program is to lower incidents of agriculture related deaths and injuries by implementing preventative programs targeted to farm and rural residents."

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"It is gratifying that Women of Unifarm have accepted the responsibility of being the lead agency for this program; after all, they have been involved in promoting farm safety since 1976 when the Farm Safety Program began," says Solomon Kyeremanteng, head of Farm Safety Program, Alberta Agriculture, Food and Rural Development, Edmonton. "Their support for this worthy cause is most appreciated. We look forward to continuing working with them in the years to come."

For each year of the four-year program, definite priorities have been determined. Year one will focus on reducing deaths and injuries related to tractors, specifically those related to roll-overs and run-overs. Year two will continue this priority and also include programs relative to power take-off and other machinery entanglements. Year three will include all program priorities to that date and also focus on the development of programs related to livestock handling. Year four will build on the established priories and also develop programs related to operation of machinery and motor vehicles on public highways. Programs that do not exactly fit these priorities but address a specific local need must be accompanied by information to quantify the issue they intend to address.

"Women of Unifarm invites applications from all non-profit organizations that have included farm safety and rural health initiatives as a priority in their mandate," adds Dyck. "Women of Unifarm are pleased to be the lead agency for this program that promotes health and safety in the community, both at home in Alberta and across Canada."

Approved projects for year one must have a start-up date of September 1, 1999 and must be completed by March 31, 2000. CASP funding is based on 50 per cent of the eligible project costs. The deadline for submitting an application form is July 23, 1999.

For more information on CASP, or to submit an application, contact Shirley Dyck at Women of Unifarm, Suite 220, 10403 - 172 Street, Edmonton, AB T5S 1K9, or phone (780) 452-7605, fax (780) 452-3708 or e-mail **<sdyck@compusmart.ab.ca>**.

Contact: *Shirley Dyck*
(780) 452-7605

Clothing company expands partnership with 4-H clubs

Wrangler's recently-announced sponsorship of the Alberta 4-H Ambassadors program seems to be a natural fit for both sides, says Wrangler spokesman Jay Ledbetter.

"Starting this is really a 'Thank-you' for the 4-H members from the Wrangler brand," he explains. "Jeans and denim jackets have long been synonymous with rural living and the partnership between 4-H and Wrangler will build on that We're grassroots as far as our people go."

Under this arrangement, Wrangler sponsors the 30 Alberta 4-H ambassadors for their training and 4-H promotional activities across the province. In addition, Wrangler provides each member with a shirt, jacket and a pair of jeans to wear during activities.

"Ambassadors are chosen at 4-H Selections for their strong communications, leadership and interpersonal skills," says Carol Sullivan, provincial 4-H media and marketing specialist with Alberta Agriculture, Food and Rural Development, Edmonton. "These senior 4-H members have several years of experience in 4-H and are 16 to 21 years old. At their recent training program at the Alberta 4-H Centre at Battle Lake, the 4-H Ambassadors added to their skill set with hands-on media and marketing sessions."

4-H ambassadors are role models in their communities. They also represent Alberta's 4-H program at provincial, national and international events. The Wrangler funds will help expand 4-H promotional activities and encourage young Albertans to join Alberta's 4-H program.

"I've benefited more from 4-H than I ever imagined," says 4-H ambassador Vanessa Belair from Fort Saskatchewan. "I'm using the leadership and communication skills as I work towards my degree in Agriculture. I know 4-H will enhance my employability in the agriculture and food industry."

Ledbetter hopes to see his company benefit as much as 4-H through this new association. "Our marketing efforts have usually been directed at rodeo, and we're trying to branch out."

If the first year is successful, Ledbetter wants to expand Wrangler's sponsorship of 4-H programs both in Alberta and across the country. "I would like to see Wrangler's presence with 4-H grow across Canada. We're looking forward to growing with you all."

For more information on joining 4-H, call(780) 422-4H4H (toll-free through the RITE line at 310-0000) or visit the 4-H web page at **<www.agric.gov.ab.ca/4h>**

Contact: *Carol Sullivan*
(780) 422-4H4H (4444)
e-mail: carol.sullivan@agric.gov.ab.ca

Food safety info line poised for expansion

Alberta's Food Safety Info Line is planning to expand. At their recent annual meeting, the non-profit Food Safety Info Society, that operates Alberta's food safety hot line, announced that a recently adopted strategic plan calls for working towards making the service available across Canada.

"As food safety grows more important to the Agri-food industry, the Food Safety Info Line provides the vital link to consumers," says line coordinator Debbie Brekke. "By offering concerned consumers direct access to reliable food safety information, the food safety specialists who staff the line foster public confidence in the safety and quality of the food supply.

"What's more, we've demonstrated that the service, which is unique in Canada, is filling a need."

Since the line was launched in Alberta in June 1995, staff have responded to more than 11,000 inquiries via the toll-free consumer hotline, 1-800-892-8333. During the year ending 1998, the volume of calls has increased an average 26 per cent over 1997.

"Each inquiry is categorized and logged onto a data bank," adds Brekke. "Over the four years of operation, the safety line has amassed a wealth of information about consumers' food safety concerns. With Agri-food partners, info-line staff are using this information to identify and design public awareness programs, which address food safety issues and gaps in knowledge."

In addition, info line staff have researched, developed and distributed a dozen factsheets on specific food safety issues. Through the media, the line has conveyed several million food safety messages to readers, viewers and listeners.

The line was launched as a project of the Alberta Home Economics Association. It has been financially supported by grants from Alberta Agriculture Food and Rural Development and the Canadian Adaptation and Rural Development Fund.

"Now the challenges for the Food Safety Info Line are to manage its growth and to develop the required alliances and financial support," says newly elected board president Suzanne Tenold, Alberta Agriculture, Food & Rural Development.

To help meet the challenge, a wealth of experience will be brought to the table by the following board members: Jane Carlyle, consultant; Nancy Follett, consultant, Facility Management Services; Simone Demers-Collins – promotions coordinator, Alberta Canola Producers Commission; Lori Gawalko – Sobey's Sanitation Hygiene and food safety specialist; Marcia Inch, Women in Science & Engineering, University of Calgary; Kathy Keeler, Beef Information Centre; Dr. Lynn McMullen, professor, Department of Agriculture, Food & Nutritional Sciences, University of Alberta and Bryan Walton – vice president, Western Region Canadian Council of Grocery Distributors.

Food safety specialists answer the Food Safety Info Line in Calgary or in Edmonton Monday through Friday. Summer hours are 9:00 a.m. to noon. During non-business hours, messages may be left on the answering service.

Contact: Debbie Brekke
(403) 287-0098 or
1-800-892-8333

4-H encourages entrepreneurial spirit

Learning doesn't always take place in the classroom. At two Youth Entrepreneurship Camps, eight Alberta 4-H members along with other Alberta youths aged 13 to 15 received some hands-on business education during their summer holidays and had the chance to plan, promote and run their own businesses.

Penny Wilkes, provincial 4-H economics and leadership specialist with Alberta Agriculture, Food and Rural Development, Edmonton, says the camps are a good way to give young people a taste of how the business world operates. 4-H encourages skills for the future and this fits into the plan. She explains, "The camps teach skills that prepare young people for future employment and make them more attractive to employers."

The camps, held at Cypress Hills and at Warwa near Westlock, each bring together about 30 youth for week-long programs. The 4-H delegates, who are sponsored by Alberta Treasury Branches, work with youth outside of 4-H for the duration of the program. "They go to this camp and plan a business. They decide what business they're going to create, then they actually carry it out. At the end of the week, they sell their products and find out if they made money or lost it," says Wilkes.

Kimberly Turre, a 14-year-old from the Halkirk area, will go to the Cypress Hills camp. She says she wants to gain some business sense to help her with a summer project she is currently working on. "I am doing an entire business this summer, cooking baked goods and microwavable lunches and selling them at farmer's markets," she says. "I'm going to the camp to learn a little about customer service and how to approach customers the right way."

Fifteen-year-old Dana Deeg of Strathmore, who will also attend

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the Cypress Hills Camp, says running her own business would be a worthwhile summer project. She says, "I thought it would be a neat camp to go to. To start my own business would be quite an accomplishment."

Also attending the August 24-30 camp at Cypress Hills are Robin Gibson of Gibbons and Mallory Thomas of Irma. Kimberly Sekura of Drayton Valley, Theresa Nelson of Stettler, Adrian Vanderwell of Duffield and Randy McGowan of Killam all went to the Warwa camp, that ran July 4-10.

Past business projects have ranged from necklaces and silk-screened T-shirts to dream catchers and ice cream sales. Participants work with a mentor, who helps them draft their business proposals, decide what supplies they'll need and guides them through the finer points of marketing their products. While there, participants also spend some time in group activities aimed at challenging them. "They do a lot of personal challenge exercises to learn that they can succeed," says Wilkes.

The Community Futures Development Corporation organizes the camps and works in a partnership with the ***4-H Business Cent$*** program to bring the eight 4-H members to the camps. The Business Cent$ program offers 4-H members the opportunity to plan and operate their own businesses, under the guidance of a mentor. Members taking part in the program run their business for the duration of the club year while continuing to take part in at least 70 per cent of club activities.

For more information on joining 4-H, call: (780) 422-4H4H (toll free through the RITE line: 310-000) or visit the 4-H web site at **<www.agric.gov.ab.ca/4h>**.

Contact: Penny Wilkes
(780) 427-4H4H

Wasp problems this year?

In many areas in Alberta, wasps are a problem again in 1999.

"Many people are concerned, from a health and safety standpoint, about the amount of wasps flying around," says Kenn Tuckey, provincial apiculturist with Alberta Agriculture, Food and Rural Development, Edmonton. "To minimize the number of wasps around a yard or home, it may be advisable to construct a small wasp trap. All you need is a 2-litre plastic pop bottle, clear or green, some water and a little sugar."

Constructing a wasp trap –

- cut the top of the pop bottle off around the shoulder of the bottle – just where the bottle becomes its widest from the top,
- put about an inch of water into the bottom of the bottle then add enough sugar to make the water sweet, about a tablespoon will do,
- remove the cap off the top of the bottle, invert the top so that the small hole is pointing downward and place it in the rest of the bottle. It shouldn't be necessary to glue or tape the top part in place, friction should hold it there,
- place the trap somewhere that it won't get tipped over, probably away from major outdoor traffic patterns as wasps will be attracted to the traps,
- to hang the trap, two small holes can be made in the bottle and a string or twine used as a hanger.

"Wasps are attracted to the sweet fluid in the trap, but once they get in the bottle, they usually have a hard time getting out and eventually drown in the fluid," adds Tuckey. "Be sure to dump and replace the fluid periodically, based on the number of wasps in the trap. Make sure there are no live wasps in the trap when dumping."

Contact: Kenn Tuckey
(780) 415-2314

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Agri-News Briefs

Southern Alberta's greenhouse lettuce crop

The average size of butterhead cultivars is approximately 200 to 230 grams. Quality has been excellent. The dwarf romaine lettuce cultivar 'Junior' (Rijk Zwaan) is also at about 200 grams per plant. This cultivar has been a good performer and quite a hit with consumers. Like all greenhouse lettuce, the baby romaine is a premium quality, clean product. The Chinese leafy vegetable cultivars grown at Alberta Agriculture, Food and Rural Development's Crop Diversification Centre South (CDCS), Brooks, have managed to maintain a six week production cycle, maintaining the same pace as the butterhead lettuce. The response of wholesale buyers to the quality of these Chinese leafy vegetables has been positive. Some of the bok choi cultivars start to wilt during the day as light and air temperatures increase, however, this can be avoided if greenhouses are equipped with evaporative cooling systems. Cultivars that withstand the heat better are being sought and evaluated. It still remains to be determined whether the superior greenhouse product can command a premium price over the field grown product. For further information, contact Jim Calpas at CDCS, (403) 362-1312.

Extending the grazing season

Providing feed to livestock is one of the main expenses beef producers face. Grazing is generally a lower cost option than the use of stored feeds such as hay or silage. Currently, field projects are evaluating grazing options such as swath grazing and the use of annual rye grass. The objective in the swath grazing is to examine crop combinations that will enhance the winter feed quality. Swath grazing involves the use of cereal crops that are left in the field for grazing. This can reduce beef producers' feeding costs by eliminating the need to process these crops into stored feed. Annual ryegrass is a grass crop that provides excellent quality late season pasture for weaning calves or grass cattle. Grown mainly in irrigated or high rainfall areas, this crop provides the beef industry with the opportunity to increase their economic returns with high quality fall or winter pasture. Current projects are evaluating management systems and animal performance on annual ryegrass pastures for summer and winter grazing. For further information, contact Gordon Hutton, crop specialist – forages with Alberta Agriculture, Food and Rural Development, Airdrie, (403) 948-8502.

Agri-News

August 2, 1999

A study of livestock expansion in Alberta now available

A new study shows that there is enough land available to handle a significant increase in livestock production in most areas of the province – if producers use good management practices.

That's one of the principal findings from ***An Assessment of the Potential Environmental Effects of Livestock Expansion in Alberta***. Golder Associates, an environmental consulting firm, was commissioned by Alberta Agriculture Food and Rural Development to produce the report, evaluating potential environmental and public health effects from a potential expansion of beef and pork production. The report is intended as a planning tool to help both municipal and provincial governments and industry ensure that livestock expansion is environmentally sustainable well into the future.

"The study assessed the potential effect of expanding the livestock sector on the quality of air (including greenhouse gas emissions), water, soil and public health," says Brian Colgan, director of special projects with Alberta Agriculture, Food and Rural Development, and chair of the Alberta Agriculture team that worked with the environmental consultants.

"This is not an environmental impact study and can't be, because the scale of the study is regional and not site-specific," Colgan explains. "The study simply points out the kinds of things that developers and producers need to keep in mind when they are looking at expanding or building new operations."

The Golder study, as it's also known, looked at five potential growth scenarios, based on the 18 agricultural census divisions in the province. The study evaluated potential expansion of the hog, cow-calf and feedlot sectors of the industry. The most aggressive expansion scenario was tripling pig production to 8.1 million finished pigs per year, increasing the beef cow herd by 20 per cent to 2.4 million cows and a quadrupling of feeder cattle imports to 2.2 million head per year. It is important to understand that potential livestock numbers may or may not be achieved sometime in the future The market place will play a big role in deciding demand, not government.

"We found that for most census divisions of the province there was enough land available to handle the scale of expansion being assessed if good management practices are used and livestock manure storage facilities are well-designed and sited

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"However, the study identifies that existing production levels in the Banff-Jasper, Rocky Mountain House and Edson census divisions, based on study criteria, are a potential issue and that there could be concerns in the Lethbridge and Red Deer census divisions with the most aggressive growth scenario," Colgan says.

Other findings:

- Public health is not expected to be adversely affected by livestock expansion;
- Soil quality is not expected to be affected;
- Odours are identified as a local, rather than a province-wide issue;
- Greenhouse gas emissions by the cow herd are a concern for expansion;

The study makes numerous recommendations on management and facility development to mitigate environmental impacts. It also provides several recommendations for research and development and for the development of regulatory standards.

The Livestock Regulations Stakeholder Advisory Group is working on the provincial Regulatory package for intensive livestock operations and will review the Golder recommendations before finalizing the draft Act, Regulations and Standards Document. The Advisory Group will release the draft Regulatory package later this summer. The department will review the other recommendations as it adjusts its research and extension programming.

"The study doesn't take into account whether the market demands or supports this scale of expansion," says Colgan. "It raises cautions that need to be considered, to ensure development is responsible and environmentally-sustainable when market opportunities present themselves in the future. "Management is the key to ensuring the environment is protected," he concludes.

The 16-page executive summary is available, free of charge, from the Publications Office of Alberta Agriculture, 7000 - 113 Street, Edmonton, AB T6H 5T6. You may also obtain a copy of the entire 324-page study at a cost of $20 through the Publications Office by writing in or phoning toll free in Canada 1-800-292-5697. Copies can be reviewed at Alberta Agriculture's Library in Edmonton or at one of the district offices.

Contact: Brian Colgan
(780) 422-5481

Pesticide drift management

When spraying pesticides, target the intended area well and watch for conditions that can cause drift.

"Pesticides can drift from the target area in two forms: vapor and droplets," says Janet McLean, the pesticide team leader at Alberta Environment, Edmonton. "Vapor, the gas phase, accounts for odor detection and is specific to each pesticide. Spray droplets can drift due to wind, as a result of a temperature inversion or from over-spraying into non-target areas."

Basic drift management principles include:

Assess hazards prior to application – areas around an application site usually have a number of land uses with varying tolerance levels to pesticides. It is necessary to properly assess the off-site tolerances prior to application. Managing spray droplets with precision, taking into account the sensitivity of adjacent field crops, is essential. When spraying near bodies of water, remember that aquatic life tends to be affected by much lower levels of pesticides than crop vegetation. Farmsteads and other residences are of particular concern if using products of higher toxicity to humans.

Buffer zones – the distance left between the last swath of an application and the edge of adjacent protected areas. The size of the buffer zone depends on the application, the amount of drift and the distance droplets will travel. Adjust the buffer zone size based on droplet size, wind and boom height.

Droplet size – the larger the droplet size, the smaller the buffer zone requirement. However, all spray application equipment will produce some small droplets that are more likely to drift. Using water volumes as recommended on product labels ensures product performance.

Wind – When winds are above 16 to 20 kilometres per hour, pesticide applications using ground or air boom application should be stopped. Some product labels specify even lower wind speed limits. Spraying when winds are blowing away from a sensitive or protected area can provide additional protection and is recommended.

Boom height – lowering boom height can reduce drift without increasing droplet size or buffer distance. The lower the boom, the less time droplets are exposed to air currents.

Temperature – high temperatures and low relative humidity increase the risk of drift because of increased evaporation. Larger droplets are less affected during high temperatures.

Temperature inversion – 'dead calm' can be a sign of temperature inversion, when very little air mixing occurs. Application droplets can hang in the air as a concentrated cloud and, when the wind picks up, move to adjacent areas. Pesticide applications should not be made during a temperature inversion.

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"Product labels or provincial crop protection guides should always be consulted for specific recommendations and application guidelines," says McLean. "Along with the right to apply pesticides, producers have a responsibility to ensure that the application does not harm adjacent properties or people. Producers can be held accountable for compensation to adjacent landowners if pesticide damage occurs."

Contact: Janet McLean
(780) 427-9888

Pasture stocking rates

Determining the stocking rate for a specific pasture involves a balance between the potential forage productivity of a site and the forage needs of the livestock.

"One method of establishing the carrying capacity of a specific pasture is to compare the pasture productivity with the demand for forage from the livestock," says Gordon Hutton, forage specialist with Alberta Agriculture, Food and Rural Development, Airdrie. "This estimate can be quickly made using a formula that requires the producer know the number of productive acres available, the amount of forage available for grazing, average body weight and the number of days the pasture will be grazed. All those math classes in grade school will really come in handy when making these estimates."

The equation looks like this:

$$\text{number of animals} = \frac{\text{pasture acres} \times \text{pasture yield}}{(0.03) \times \text{animal weight} \times \text{number of grazing days}}$$

"In most situations, it is easier to estimate animal requirements," says Hutton. "Livestock need to have daily access to approximately three per cent of their body weight in forage, 2.5 per cent for intake and 0.5 per cent for trampling loss. Using this calculation, if the average body weight of a cow herd is 1200 pounds, the daily forage requirement would be approximately 36 pounds."

When the daily forage requirements are combined with the number of grazing days, a good estimate of the forage requirements for a specific grazing period on a specific pasture can be made.

"Using the same average weight, 1200 pounds, to graze for one month requires 1080 pounds of dry matter pasture forage, 36 pounds times 30 days" adds Hutton. "Estimating the productivity of a pasture is not as easy as there are a lot of variables such as soil type, soil moisture, soil fertility and forage species that can influence pasture yield. To effectively estimate stocking rates, producers need some estimate of forage yield."

Using hay yields of similar forage stands is one option that can be used as a rough estimate but only 70 to 80 per cent of the pasture yield should be used. Pasture forage yields are normally 20 to 30 per cent lower than hay yields because of grazing action.

"Another way to estimate a forage stand is to clip a small area in the pasture and measure the amount of forage available for grazing," continues Hutton. "This is best done by clipping a square foot in two or three locations of the pasture. Take the average weight from the clipped sights and use 20 per cent of this weight as an estimate of the dry matter. This number can then be multiplied by the number of square feet in an acre and an estimate of the dry matter yield on a per acre basis is arrived at."

Only 20 per cent of the forage weight is used in calculating dry matter yields because forage crops are generally 70 to 80 per cent moisture during the growing season.

Forage yields can be deceiving especially when moving from one forage species to another. This is particularly true when comparing low stature grasses, such as annual ryegrass or creeping red fescue, with taller growing forages, such as alfalfa or timothy.

"It takes a trained eye to estimate what 1000 pounds of dry matter looks like in a pasture. Producers who take the time to establish a benchmark by doing a clipping estimate usually have a better 'eye' for visual estimating," says Hutton.

Contact: Gordon Hutton
(403) 948-8502

4-H Operation Enterprise

No matter where they're going in the future, the two Alberta 4-H'ers who are going to the *Operation Enterprise* business camp in August will learn skills there that will last a life time.

Andrea Vavrek from Sexsmith and Alisa Prehn form Galahad will take part in the Operation Enterprise program, set to run August 9-16 in Lloydminster. Sponsored by AEC Pipelines and Nelson Lumber Foundation, the pair will gain management and leadership skills in an internationally-recognized training program for young adults. Covering communications, planning, entrepreneurship, leadership and numerous other areas, the week-long course aims to give young people a clearer understanding of how to effectively manage their time and resources, no matter what career path they choose.

Seventeen-year-old Vavrek, a member of the Bear Lake 4-H Beef Club, hopes to become a chemical company representative or an elevator manager someday. She says Operation Enterprise fits in with her career plans. "There are classes on professional ethics, which I don't know much about, so it'll be really beneficial. You also learn a lot of management skills, and I'm really looking forward to learning how to roll it all into one. There will be a lot to use in the future to be able to manage time or run a company."

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Prehn, 19 and a member of the Forestberg 4-H Multi-club, has heard from a friend who took the same course 10 years ago how beneficial it has been in her teaching career. "She said the older you get, the more useful it is. I'm going to school for teaching, so it will be for personal experience more than anything. It's a really useful thing for the future."

Since its inception in 1963, Operation Enterprise has brought together volunteer corporate executives to share their knowledge and experience with students. Vavrek and Prehn were awarded this chance for personal growth during the Selections banquet held last April. Selections offers 4-H delegates from across Alberta the chance to take part in tours and programs aimed to better their understanding of the world they live in and to aid in personal growth.

For more information on joining 4-H, call (780) 422-4H4H, toll free through the RITE line at 310-0000, or visit the 4-H web site at **<www.agric.gov.ab.ca/4h>**

Contact:	*Ian Chisholm*	*Marguerite Stark*
	Operation Enterprise	*4-H Branch*
	1-800-634-4262	*(403) 948-8510*

4-H achievement day at Mountain View County Fair

When Alberta 4-H Draft Horse Project members celebrate their achievement day in conjunction with the Mountain View County Fair in Olds on August 5, they'll be doing it in a big way.

"Some of the draft horses are 2,000 pounds," says Lawrence Bazin, a member of the Canadian Belgian Horse Association, and one of the co-ordinators for the Alberta 4-H Draft Horse Show. Despite the size of their horses, however, club members know what they're doing.

"The kids who get into this program are pretty dedicated. Throughout the year they have done work at the local level. They've also participated in at least two clinics each year. The show on the fifth of August is a culmination of this year's activities," says Bazin.

The 24 Alberta 4-H'ers currently enrolled in draft horse projects, which run for three years, raise their horses from foals to maturity. During that time, they work with experienced handlers to learn everything from handling and decorating the animals to how to drive the horses with carts attached. "We've had kids start at 11 years old and finish at 14, and be fully capable of handling the horse."

Scheduled to run as part of the Mountain View County Fair in Olds and hosted by the Alberta Draft Horse Association, the show will feature driving classes for the members in the final year of their projects, as well as judging, decorating and showing classes for all participants. 4-H'ers from across Alberta will take part in this show, which is sponsored by the Alberta Draft Horse Association.

""It starts at nine in the morning at doesn't finish till four in the afternoon. It's pretty comprehensive," he says.

Henry Wiegman, provincial agriculture specialist with Alberta Agriculture, Food and Rural Development's 4-H Branch, says the draft horse project has been a successful partnership with the provincial draft horse association in not only educating young Albertans about draft horses, but in spawning new clubs as well.

"We've had some off-shoots from this project where people have formed their own clubs. One of the goals of the Draft Horse Association is to increase the number of draft horses in Alberta," he says.

For more information on joining 4-H, call 422-4H4H (toll fee through the RITE line at 310-0000) or visit the 4-H web site at **<www.agric.gov.ab.ca/4h>**

Contact: *Henry Wiegman*
(780) 427-4532

Environmental summer camp

Imagine sharing 143 acres with over 100 species of wildlife, exploring 65 million year old bedrock and hiking through trails of fern glade forest for as far as the eye can see. This opportunity at the Environmental Summer Camp at the Alberta 4-H Centre in Battle Lake is available to young Albertans aged 9 to 12 during the week of August 22-26, 1999.

"The Environmental summer camp provides the luxury of home cooked meals, hot showers and warm bunks combined with a natural lakefront setting where an appreciation for the environment is deeply rooted," says Danielle Warren, program administrator for the 4-H Foundation of Alberta. "The week will be filled with activities that will help youth find skills and strengths inside themselves they never knew they had."

For more than 20 years, the Alberta 4-H Centre has offered youth camps and environment camps. The Centre is a year round environmental education facility located one hour southwest of Edmonton.

"Some of the activities available at the Environmental Summer Camp include: swimming, creative crafts, camping, skills group activities, games, leadership skills, archery, friendships, canoeing, campfires, hiking and nature studies and initiative tasks," adds Warren. "Qualified and experienced staff with appropriate certification deliver the programs. Supervision is provided 24 hours per day."

The Alberta 4-H Centre is a safe, clean facility with staff members trained and certified in Standard First Aid and CPR. The Alberta 4-H Centre is owned and operated by the 4-H Foundation of Alberta and is accredited by the Alberta Camping Association.

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Registration deadline is August 13, 1999. Registration fee for the program is $159.00. This includes all meals, accommodation, instruction and supplies.

For more information or to register for the Environmental Summer Camp, contact the 4-H Foundation of Alberta at (780)427-2541, fax (780)422-7755 or e-mail <**danielle.warren@agric.gov.ab.ca**>.

Contact: Danielle Warren
(780)427-2541

Agri-News Briefs

Excellent resource for Alberta processors

The Northwest Processor is a quarterly newsletter linking rural processors with research, technology and information. Each issue deals with processing, marketing and promotional issues that Alberta processors face continually. The newsletter is published by the rural development specialists – business with Alberta Agriculture, Food and Rural Development. For more information on this publication or to subscribe, contact Kerry Engel, rural development specialist – business, Westlock, (780) 349-4465.

National beef science seminar

Lethbridge Research Centre (LRC)will host the next National Beef Science Seminar on January 26 to 28, 2000. The theme is Beef Science for a New Century. The seminar will feature local, national and international experts in beef industry trends and issues. Presentation will be made on a wide range of topics. The LRC will also host a tour of the research facilities to highlight how scientific research is addressing the most pertinent issues currently facing the beef industry. The seminar brings together representatives from the beef industry and the research community. For more information, contact the Livestock Sciences Section, LRC, P.O. Box 3000, Lethbridge, AB T1J 4B1; phone (403) 317-2227; fax (403) 382-3156 or e-mail <**lethbridge@em.agr.ca**>.

The SIMs are coming...

The best way to learn about Canadian marketing is through Alberta Agriculture, Food and Rural Development's Sim courses – CattleSim and FutureSim. Markets change constantly; policies, contracts, prices and weather change also. The updated 1999 agricultural marketing courses lets producers try a hands-on challenge of a realistic simulation of that markets that lets participants experience commodity futures, options and cash contracts. Sim courses are designed for producers, agribusiness and lenders. The CattleSim covers livestock markets, futures, options and cash contracting. Participants analyze alternatives from selling calves at weaning to U.S. export for slaughter. The course concentrates on targeting markets with specific products and using the right tools to meet changing needs. The FutureSim covers broker management, crop delivery issues, hedging, options, speculation and market orders. It includes option trading, U.S. futures contracts, cash basis contracts, currency risk, cross hedging and locking the dollar. This course is about reducing price risk in the next century. The CattleSim is being held in Calgary from October 18 to 21, 1999 and the FutureSim in Edmonton from October 27 to 29, 1999. The cost is $225 (includes GST). Other courses may be held at locations across the province, depending on interest or groups. For more information, contact Doug Walkey, market specialist with Alberta Agriculture, Lacombe, (403) 782-3301 or e-mail <**doug.walkey@agric.gov.ab.ca**>.

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August 9, 1999

Approval needed before controlling lakeside plants

Aquatic plants such as cattails and bulrushes, are a natural part of a healthy aquatic ecosystem. Aquatic plants rooted in the bed and shore of a water body provide habitat for fish and a variety of waterfowl. These plants make use of nutrients in the water body that would otherwise contribute to unwanted algae growth. They also play a role in protecting shorelines from erosion caused by wave action.

"It's important for landowners to know exactly what aquatic fish and waterfowl habitat is," says Gerry Haekel, riparian land management specialist with Alberta Agriculture, Food and Rural Development, Edmonton. "In Alberta, a variety of fish species rely on rooted aquatic plants to reproduce and rear their young. For example, Northern Pike attach their eggs to the stalks of bulrushes or cattails. These plant beds are also feeding areas and provide cover for fish."

The federal Fisheries Act defines fish habitat as: *spawning grounds and nursery, rearing, food supply and migration areas on which fish depend, directly or indirectly, in order to carry out their life processes*. The harmful alteration, disruption or destruction of fish habitat is considered a prosecutable offence under this Act.

To help ensure that important fish and wildlife habitat is protected, water quality is maintained and that appropriate methods are used, authorization is required for controlling rooted aquatic plants in and around lakeshore areas. An application form can be obtained and submitted at any of Alberta Agriculture's Public Lands offices or at Alberta Environment's Natural Resources offices.

"Occasionally some control of aquatic plant growth may be necessary to access open water from a pier or boat launch," says Haekel. "However, the cumulative effect of random and unrestricted removal of aquatic plants by cottage owners can harm the lake environment and disrupt the ecological role of these plants in providing fish habitat, in maintaining water quality and in reducing shoreline erosion.

"Chemical methods of control are restricted within 30 metres of any water body in Alberta. A special permit is required. Methods that control growth by authorized mechanical means, such as hand pulling and weed rakes, are acceptable provided that the bottom sediment of the lake bed is not excessively disturbed. Authorization, however, is still necessary. A special permit is required for using chemicals to control aquatic plants growing in the water or on the shore of a lake.

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Landowners are, however, exempt from obtaining a *Special Use Approval* to apply herbicides on their privately-owned residential land that produces turf and ornamental plantings."

When approved, controlling rooted aquatic plants is restricted to a single cut between July 1 and September 30 in any given year. This prevents the loss of spawning or nesting habitat and ensure that the reproductive cycles of fish and waterfowl are completed before the area is disturbed.

"Cutting is limited to a depth of not more than one metre from the water's surface," adds Haekel. "Plant cuttings are to be removed from the water and shore area as the plants are cut. Cut vegetation must be removed or it will float to other areas and become an unwanted nuisance for other people. The cuttings must be disposed of in such a way that they cannot re-enter the water or decay on the shore. Disturbance to the bed and shore of the water body by the cutting activity is to be minimized. It should be remembered that stirring up sediment in the water releases nutrients and may contribute to future algae growth problems."

Aquatic plant removal, when authorized, is normally limited to what is absolutely necessary to get a boat out into open water. Albertans should contact their local Public Lands or Natural Resources office for more information and to obtain the necessary authorization.

Contact: *Gerry Haekel*
(780) 427-4767

Shelterbelts – planning ahead

The purpose of a good shelterbelt is to protect soil from erosion, provide habitat for wildlife and livestock, provide road and farmstead protection, trap and distribute snow, provide fruit for jams and jellies, and to add beauty to the landscape.

"Shelterbelts can reduce wind velocity for distances of up to 15 times the height of the trees," says Don George, conservation technician with Prairie Farm Rehabilitation Administration (PFRA), Vegreville. "They also trap snow, reduce evaporation and increase temperatures resulting in increased crop yields. Like any project, however, the secret to success is planning."

Soil needs to be prepared for tree planting at least one year in advance. Maintenance for the first several years is necessary for trees to establish properly.

"Many things need to be considered before planting begins," says George. "The first thing is to determine what the conservation shelterbelt is intended to do. A shelterbelt designed for soil conservation is very different from one designed to enhance wildlife habitat. Many different tree and shrub species will grow successfully in Alberta, depending on location, and each species has different characteristics. Another consideration is the land itself. Species selection and even spacing distances between trees depend on soil texture and the topography of the area."

Some of the trees that are recommended for field shelterbelts are: Green Ash, Scots Pine, Siberian Larch, Dogwood, Villosa Lilac, Acute Leaf Willow, White Spruce, Caragana, Silver Buffaloberry, Sea Buckthorn and Western Chokecherry.

"Whether for wind break or wildlife, the first step in planning a shelterbelt is to sketch the area," adds George. Include bluffs, rock piles, water bodies, buildings, roads and power lines. Determine how the natural features can be incorporated into the planting. Remember, rows don't need to be straight and often, several rows of different tree species may be the best design, depending on the intended use."

If the shelterbelt is to be used to protect livestock, buildings and roads, remember that snow will drift some distance away from the trees. Plant the shelterbelt a minimum of 45 metres away from a road or the amount of snow on the road could increase.

"Rows of trees around a dugout can trap large amounts of snow, a benefit especially important during years of minimal runoff," adds George. "The actual amount of snow trapped depends on snow fall, density of the tree row and single versus multiple rows. Also, snow blows across fields until it is trapped by an obstacle such as a building or shelterbelt. The size of this open area, called the fetch distance, is very important in determining how much snow a shelterbelt will trap. A shelterbelt will trap more snow if the field upwind of the tree row is flat and open."

Two different programs are available to Alberta farmers, PFRA's Conservation Tree program and Alberta Nursery's Farmstead Tree program. Trees to be used in shelterbelts for developing wildlife habitat or for protecting agricultural land from erosion can be applied for under the Conservation Tree program. They are provided free of charge to Alberta producers owning greater than 40 acres. Under the other program, a minimal fee is charged for trees being located around or on a homestead. The price for trees under the Homestead Tree program is between $9 and $11 for each group of 10 trees, depending to the type of tree. This is approximately $1 per tree for yard and homestead use.

Applications for the Conservation Tree and Homestead Tree programs are available from all Alberta Agriculture, Food and Rural Development district offices, all PFRA offices and from Alberta Nurseries (403)224-3407. An application fee of $26.75 must accompany all applications. This fee covers processing the application and all shipping and handling fees.

"Trees are available on a first come, first served basis, so it makes sense to get applications for next year's trees in early," continues George. "Applications must be received no later than March 15, 2000 for trees that will be delivered to local Ag

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Service in spring of 2000. Don't wait until it's time to plant to plan and prepare for a new shelterbelt. Advance planning and preparation increases the success rate for shelterbelt trees."

Contact: Don George, PFRA (780) 632-2919
Rick Owen, Alberta Nursery (403) 224-3407

Know the customer

In a recent issue of ***Food Processing***, John L. Stanton of St. Joseph's University wrote, "The aim of marketing is to know your customers so well that when your prospects are presented with your product, it fits their needs so exactly it sells itself."

If a company practices this marketing philosophy, every aspect of the business has a role. The article goes on to say that even if the product is perfect for a consumer, advertising must tell the consumer about the product and how it is designed for him or her. Research and development must make sure the product is perfect, sales must make sure the perfect product is offered at the right price and promotions/sampling must be sure there is excitement for both the consumer and the customer surrounding the product.

"Many companies have found sampling to be a way to stay in touch with their consumers," says Joyce Lencucha, agri-food development specialist with Alberta Agriculture, Food and Rural Development in Red Deer. "Sampling creates excitement. It creates traffic, fun and involvement of consumers with the retailer. Consumers in a recent focus group reported that it's fun to try new and different foods. Sampling not only encouraged them to try, but also to purchase foods they might not ordinarily buy. Forty per cent reported that they became aware of new products through sampling."

Sampling also encourages feedback to the processor. Is the consumer happy with flavor? Do they have ideas for other packaging sizes? Are the instructions for use clear?

"Listen to the customers! They want to try products before they are asked to spend money on them," adds Lencucha. "For existing products, use sampling to remind them how good the product tastes or to create excitement and new sales by showing a new use for a familiar product."

For information on starting a new food business, check out a new page on the Alberta Agriculture web site: **<http://www.agric.gov.ab.ca/bizinfo>**.

Contact: Joyce Lencucha
(403) 340-5358

4-H'ers to attend SUNIA

Two Alberta 4-H'ers will have the chance to hone their leadership skills next month – and try to bring order back to Kosovo at the same time – when they join other youths at the Seminar on the United Nations and International Affairs

Charlene Carey of Kitscoty and Andrew Ormberg of Rimbey will take part in the seminar at the Goldeye Centre near Nordegg on August 22 to 27. Aimed at teaching young people about international diplomacy and at improving their understanding of global issues, the seminar on the United Nations and International Affairs (SUNIA) offers delegates the chance to assume the role of UN delegates trying to resolve an international conflict. This year the delegates will debate a resolution aimed at restoring peace in Kosovo.

Carey, 19 and a member of the Vermilion Sheep Club, said she was surprised when she was awarded this trip during the Selections banquet in April. She is pleased that she'll be representing the United Kingdom at SUNIA because it's an area she's already familiar with.

"Last year I did a huge project on the UK, so I was pretty relieved when I got them," she explains. "I was also paying attention to the situation in Kosovo, because I knew questions on it would probably be asked at Selections."

But there are a few butterflies in her stomach, she adds. "I'm a little bit nervous because it will be mostly city kids there, but I think it'll broaden my horizons."

Although she's planning on taking Early Childhood Development at Lakeland College in the fall, Carey says 4-H camps have taught her a lot, and she's expecting to benefit from SUNIA as well, even though she isn't planning a career in international relations.

"I definitely think it will teach leadership. You pick up things at these camps and don't even realize it until you get home. The other people bring a lot to it, too."

Eighteen-year-old Ormberg, a member of the Rimbey 4-H Multi-Club, said SUNIA was his first choice at Selections. He says, "I like to keep up with the news and I'm pretty opinionated, too." Together, they should help prepare him for the debate delegates will undertake at the camp.

Ormberg, who will represent the Chinese delegation, says the accidental bombing of the Chinese embassy during NATO air strikes will likely play a part in his submissions to the mock council. "That'll definitely come up in talking about the air strikes and how effective they were. That'll be a big point."

SUNIA will also be a chance for him to meet new people and find out how other people look at the world. "I expect to meet a lot of people. It's mainly urban kids, so I'll meet people who grew up in the city and see what their views are."

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Ormberg, who was named this year's 4-H Premier's Award Recipient, plans to study radio broadcasting at NAIT in the fall.

Both 4-H delegates to SUNIA are sponsored by the Calgary Exhibition & Stampede.

For more information on joining 4-H, call 422-4H4H (toll-free through the RITE line at 310-0000) or visit the 4-H web site at **<www.agric.gov.ab.ca/4h>**.

Contact: Marguerite Stark
(403) 948-8510

4-H involvement in environmental stewardship

More than 100 Alberta 4-H'ers will get some hands-on environmental stewardship training this summer when given the chance to role-play and run an imaginary ranch during a series of week-long camps held at the Alberta 4-H Centre at Battle Lake. But even if the ranch isn't real, the knowledge gained from this exercise is.

Susann McGowan, a planning team member for the 4-H People Developing People (PDP) camps, says the 4-H'ers who come to these programs will engage in personal development activities that will increase their self-esteem and help them to be stronger community leaders. These skills will be gained during the week through a variety of sessions including nationalism, communication and peer pressure.

"It's a self-development camp in a team atmosphere. That's why it's called People Developing People. We want participants to interact with each other in this program and widen their knowledge of the environment and of themselves," she says.

The participants, aged 13-15, take part in one of three camps, held July 25-30, August 9-14, and August 16-21. At the beginning of each camp, the delegates are divided into smaller groups where they will work together through the sessions and activities of the week. These groups are also assigned the role of a land use group, such as ranchers, farmers or environmentalists. From there, each group is assigned a piece of land to manage on an imaginary 4-H ranch. "They have to develop that piece of land to the best of their ability while keeping the environmental impact to a minimum," says McGowan.

A variety of speakers representing different points of view help the delegates better understand the issues facing land users today. At the end of the camp, each group makes a presentation explaining the direction they took in developing their land. "This is when the participants can really show what they learned during the week," says McGowan. "You can tell when they're presenting their arguments that there has been an increase in knowledge and understanding."

Sponsored by Agricore, Lammle's Western Wear, Peavey Mart and Alberta 4-H Programs Trust, the PDP camps also offer delegates personal development sessions, as well as traditional camp activities such as water sports, crafts, hiking and camping. Additionally, delegates have the opportunity to choose a special interest session that runs for one full day. One choice allows delegates to showcase their dramatic skills by shooting their own video in a program called *You be the Star.* No matter which personal development program they choose, McGowan says the delegates are always able to learn something new about themselves in a relaxed group atmosphere.

"It gives them some choices and lets them think for themselves," she explains. "These delegates are motivated and open-minded."

For more information on joining 4-H, call 422-4H4H (toll free through the RITE line at 310-0000) or visit the 4-H web page at **<www.agric.gov.ab.ca/4h>**.

Contact: Susann McGowan
(403) 948-8568 or (780) 682-2062

Agri-News Briefs

Advisory from Alberta Farm Implement Act Administration

New Noble Distributors Inc. entered into receivership September 17, 1998. Statutory warranty, as provided by the Alberta Farm Implement Act, will expire shortly. Any statutory warranty concerns that have not been addressed by New Noble should be registered. Contact the Alberta Farm Implement Act administration office at #305, 7000 - 113 Street, Edmonton, AB T6H 5T6 or phone (780) 427-2188. Government numbers are toll free within Alberta by dialling 310-0000 first.

Environmental summer camp

The Environmental Summer Camp at the Alberta 4-H Centre in Battle Lake is available to all young Albertans aged 9 to 12 during the week of August 22 -26, 1999. The camp provides home-cooked meals, hot showers and warm bunks, all in a natural lakefront setting where an appreciation for the environment is deeply rooted. For more than 20 years, the Alberta 4-H Centre has offered youth camps and environment camps. The Centre is a year-round environmental education facility located one hour southwest of Edmonton. The Alberta 4-H Centre is a safe, clean facility with staff members trained and certified in Standard First Aid and CPR. Supervision is provided 24 hours per day. The Alberta 4-H Centre is owned and operated by the 4-H Foundation of Alberta and is accredited by the Alberta Camping Association. Registration fee for the program is $159. Registration deadline is August 13, 1999. For more information or to register, contact the 4-H Foundation of Alberta at (780) 427-2541, fax (780) 422-7755 or e-mail <**danielle.warren@agric.gov.ab.ca**>.

Promoting an organization's activities

Effective promotion of an organization's activities can be one of its best assets. A new *Success by Design* factsheet (Agdex 1926-50) titled ***Promoting Your Organization's Activities*** takes a step by step approach to planning and promoting an activity. The factsheet lists things to consider during the planning phase and what promotional tools can be used. An example of a flowchart timeline is included as a helpful guide. For organizations, a successful activity can enhance the sense of purpose within the organization, build pride and create community awareness. Copies of this and other *Success by Design* factsheets are available from all Alberta Agriculture district offices and the Publishing Branch of Alberta Agriculture, Food and Rural Development, 7000 - 113 Street, Edmonton, AB T6H 5T6.

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August 16, 1999

Project to give farmers better field information

A new joint pilot project will tap into information about Alberta crop performance and make it available to farmers at no cost. As a result, farmers will have more accurate information with which to make their cropping decisions.

The project, called Alberta Management Insight, is a joint venture by Agriculture Financial Services Corporation (AFSC) and Alberta Agriculture, Food and Rural Development (AAFRD). Under the project, AFSC will compile customer crop information and use it to assist farmers in making management decisions. This approach could ultimately help improve the farm's bottom line.

Agriculture Financial Services Corporation is a Crown corporation providing farmers and agri-businesses with crop insurance, income protection and unique financing options. AFSC has offices around the province.

Ty Lund, Minister of Alberta Agriculture, Food and Rural Development, says that the project will offer a valuable resource to Alberta's farmers.

"Without a doubt, the most important farm input is information," says Lund. "Farmers weigh a large number of variables in deciding what, how and when to plant their crops. This project shares information we collect for insurance purposes from more than 15,000 farmers across Alberta."

Brian Manning, president of AFSC, agrees. "At times farmers certainly feel there are a lot of forms to fill out, but gathering information like this and sharing it with producers turns it into a tremendous resource."

Manning says that information collected under the project will be classified and placed into a world-class agricultural database. The project will be administered through a partnership between AFSC, AAFRD and the Alberta Farm Business Management Initiative. Information will be distributed two ways:

- Data on variety performance by soil zone will be available through local AFSC and AAFRD offices. All current AFSC insurance customers will be sent individual land summaries this fall.
- These summaries will detail variety performance and reported or measured yield on the land from 1991 through 1998.

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"We will also show how performance compares with the average of other AFSC customers in their local region," says Manning. "It provides a critical benchmark allowing farmers to make meaningful comparisons and better business decisions."

Manning says that information shared under the project will be kept confidential. No individual information will be identified, other than that provided to AFSC customers about their own farm land. Information will be shared on an area-by-area basis.

In the future, AFSC plans to integrate information voluntarily provided by non-policyholders. A broader base of production information will allow AFSC to provide more individualized insurance products for customers. Management and production decisions based on more accurate information could also lead to reduced insurance liability for AFSC, helping to keep future premiums low.

Contact: *Brian Manning* *(403) 782-8225* *Tom Crozier* *(403) 782-8251*

Is there a new crop for your farm?

"Many new crops are being tried in Alberta," says Neil Miller P.Ag., crop specialist, pulse and special crops with Alberta Agriculture, Food and Rural Development in Lacombe.

"Crop diversification continues to be a major focus on many farms. Just as most of the conventional crops grown in the province were imported from other parts of the world, new crops are beginning to successfully take root in Alberta," notes Miller.

Alberta Agriculture is active in screening new crops to see which are adaptable to Alberta conditions. Much of this work takes place at the Crop Diversification Centre North (CDCN), located just north of Edmonton. Part of the job is to identify and evaluate new species and varieties that will benefit central and northern Alberta producers.

At a recent CDCN field day, Dr. Stan Blade, director, and the staff escorted 150 Albertans on a tour to view some of the new and innovative research on vegetables and fruits, new crops, woody ornamentals, greenhouse production, potatoes and a host of other programs. The field day was held at the CDCN on July 27.

One major point of interest at this year's field day, was the low-THC hemp. The commercial production of low-THC hemp has been allowed in Canada since 1998. Field trials at CDCN include agronomic trials, as well as the evaluation of hemp cultivars from several European countries.

Other new crop research at the centre looks at new pulse and other field crops, such as field peas, lentils, dry beans, chick peas, canaryseed and fenugreek. CDCN is also doing trials on spices and a large array of medicinal plants, including ginseng, echinacea and St. Johns Wort.

People attending the field day on July 27 were able to see and taste field experiments on new vegetable cultivars such as squash, hot peppers and garlic. They also experienced a great variety of specialty vegetables, including baby beets, kale and ornamental pumpkin.

The greenhouse program provides information and tours of research facilities on protected crop production of tomatoes, lettuce and medicinal plants.

"Other stops on the tour included seed potato trials; saskatoon, raspberry and strawberry taste test and evaluations; woody ornamental field trials; and, apiculture information," adds Miller. "In addition, there were entomologists and pathologists talking about research on insects and diseases which have great impact on Alberta producers."

The format for the annual field day changed this year. A full day tour was conducted in response to requests from the public. Tour participants had an extended opportunity to discuss projects with CDCN researchers.

"Interest has been high in the CDCN field days in past years and 1999's field day was no exception," says Miller. "Producers are looking for new opportunities in field crop and horticultural production."

Contact: *Neil Miller* *(403) 782-3301* *Dr. Stan Blade* *(780) 422-1789*

Ins and outs of food labelling

Common sense and good business practices form the basis of food labelling regulations.

"One of the most overlooked aspects in the development of a food product is the label," says Kerry Engel, rural development specialist - business with Alberta Agriculture, Food and Rural Development, Westlock.

"Processors are often very focused on improving their formulations, developing the perfect tasting food product. The label is an afterthought. Choosing the best, safest and most appropriate packaging and labelling for your food product is a key step in the development of any food processing business and should be dealt with accordingly," adds Engel.

The label on your food product must persuade a consumer to choose your product over a competitor's and it announces what your product is, what it is made of and possibly what its nutritional content is. Your label must also comply with regulations.

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The Canadian Food Inspection Agency (CFIA) is responsible for food inspection and protection. Labelling regulations fall under their mandate. For detailed information on food labelling regulations check out the Food and Drug Regulations of the Food and Drugs Act and the Consumer Packaging and Labelling Act on the CFIA web site at <**http://www.cfia-acia.agr.ca/english/ppc/label/home.html**>.

The latest issue of the Northwest Processor newsletter deals with packaging and labelling issues for food processors. Issues covered include: trends in packaging; advantages disadvantages of various packaging materials; help and where to find it; label creation; development of a food label checklist; spotlight of Basil's Fire and Brimstone Hot Gourmet Pepper Sauce and upcoming events.

"A packaging and labelling checklist developed specifically for this latest issue of the Northwest Processor outlines the various steps needed to develop an effective label that meets government regulations," says Engel. "It addresses the following: target market; distribution, transportation; and, regulations, container and design considerations. This issue is a must for anyone in the development stages of a food business."

To receive a free copy of the Northwest Processor newsletter, linking rural food processors and farm managers with research, technology and information, call Kerry Engel at (780) 349-4465.

Contact: *Kerry Engel*
(780) 349-4465

Infectious pinkeye in cattle

There are many factors that contribute to pinkeye, but usually, the bacterium Moraxela bovis is involved. Pinkeye is an eye infection that starts with the reddening of the eyeball and swelling of the eyelid. This leads to a water discharge and excessive blinking in bright sunlight in either one or both eyes. Pinkeye must be differentiated from foreign material in the eye, cancer eye and infectious bovine rhinotracheitis (IBR).

"Many factors contribute to pinkeye," says Bill Grabowsky, beef specialist with Alberta Agriculture, Food and Rural Development in Wetaskiwin. "Factors that predispose cattle to pinkeye and contribute to the incidence and severity of pinkeye include: sunlight or ultraviolet light damaging the cornea of the eye; a lack of pigmentation of the eyelid which can vary among and within breeds of cattle; horn and face flies irritating the eyes and transfering the bacteria from infected to non-infected animals; the age of cattle as calves are more susceptible than older cattle that may have developed immunity from previous exposure; and, eye irritants such as tall pasture grasses, dusty conditions and rough forage."

If an animal goes untreated in the early stages, the centre of the cornea becomes whitish or yellowish in color and may become elevated and ulcerated. Some eyes may rupture, resulting in blindness. Treatment of infected animals usually involves the use of antibiotics and removal from direct sunlight to shaded and cooler areas. Reducing horn and face fly populations is also beneficial. This can be done by using one or two insecticide cattle ear tags per animal.

"Pinkeye is very common in beef herds in early summer and fall," adds Grabowsky. "An early, accurate diagnosis and treatment is necessary to control the problem. The local veterinary clinics should be consulted to recommend the most up-to-date antibiotic treatment protocol for infected animals. Failing to treat susceptible animals will lead to loss in body condition, possible blindness, discomfort and in the case of cows, loss of milk production."

Contact: *Bill Grabowsky*
(780) 361-1240

4-H'ers, California bound

When Kevin Borduzak and Shelli Paulsen arrive in California this month, they'll be doing a lot more than sightseeing and relaxing on the beach.

Both these Alberta 4-H'ers won the right to attend the *Building Blocks of the Future/Youth Leadership Summit* at the University of California, Los Angeles, during the Provincial 4-H Selections banquet last May. Seventeen-year-old Paulsen, who lives near Endiang, says the trip is so popular with 4-H'ers, she didn't think she had much hope of winning it.

"It was my first pick because I've never seen the ocean," she explains. "A lot of people signed up for it. When they were doing the awards, I didn't even hear them call my name. I was so surprised."

While in California, both delegates will spend about a week with a host family before attending the conference. At UCLA, delegates attend workshops on community development, leadership and communication skills, youth collaboration with adults, and other areas.

Borduzak, 18, who lives near Vimy and is a member of the 4-H Beef Club there, says he wants to learn as much as he can from the conference. "There are classes on computers and wildlife. There's a lot there. I think it's mostly 4-H leaders and members who are giving these courses," he says. "I'm sure there'll be tons of people there, and whatever skills they can teach me, I'd love to bring back to Alberta."

Paulsen, a member of the Rainbow Riders 4-H Horse Club, says she hopes to challenge herself and to get as much as possible out of the experience. She especially wants to learn about impromptu public speaking, and gain some experiences that will make her last year in 4-H a memorable one.

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"This is my last year in 4-H because I have a job lined up in B.C. next summer. I really wanted to go on a big trip so I could come back and tell the younger delegates about it," says Paulsen. "I was told it would be over 100 degrees every day in California, so that will be a little different from what we have here."

Paulsen plans to travel to Australia when she finishes high school next year, and Borduzak will start the first year of a two-year crop technology course at Olds College this fall. But no matter where they go in the future, both delegates agree that trips such as these will benefit them for years to come.

"4-H helps us in lots of different ways. The skills we learn in 4-H stay with us for life," says Borduzak.

For more information on joining 4-H, call 422-4H4H (toll free through the RITE line at 310-0000) or visit the 4-H web page at <**www.agric.gov.ab.ca/4h**>

Contact: Marguerite Stark
(403) 948-8510

When to swath Argentine canola

Swathing canola too early can result in reduced yield and oil content. Trials have been conducted to determine the optimum time of swathing. Some of the trials showed that early swathing can result in yield losses of up to 20 per cent due to kernel shrinkage when the canola had attained 15 per cent color change. This shrinkage happens when conditions are hot and dry.

"The optimum staging for swathing canola is 30 to 40 per cent seed color change," says Gary Berger, crop specialist with Alberta Agriculture, Food and Rural Development in Athabasca. "Argentine canola is usually swathed slightly earlier than Polish canola. Swathing can begin in Argentine canola at 10 to 15 per cent color change. Polish canola should be left until 20 to 25 per cent seed color change."

Seed canola color change should be assessed by actually opening pods on the main stem, starting at the bottom. Seed color change does not mean the entire seed has changed color. Any indication of change to yellow or brown should be counted as changed color.

"At this color change stage, seed in the bottom third of the pods on the main stem have changed and the seed in the upper pods are green, but firm enough to roll between the thumb and forefinger without breaking," adds Berger. "Fields should be watched carefully. In hot dry weather, canola can go from 10 to 50 per cent seed color change in just four days. Normally the optimum stage lasts for one to two days."

Swathing earlier than 10 per cent seed color change is not recommended, except under extreme conditions such as an imminent fall frost. Under some conditions, swathing at the earliest stage resulted in yield and grade advantages because the effects of Blackleg, Alternaria Black Spot and early fall frosts were avoided.

Contact: Gary Berger
(780) 675-2252

Plant exchange helps preserve wetlands

In an attempt to remove ornamental *Lythrum* varieties (direct descendants of the noxious weed purple loosestrife) from Alberta gardens, 30 greenhouses around the province are again participating in the Purple Loosestrife Plant Exchange Program.

Once thought to be sterile, ornamental varieties of *Lythrum* have now been scientifically proven to produce viable seed and contribute to the pollen source for escaped populations.

These plants can be found under the following aliases: *Atropurpureum*, Columbia Pink, Firecandle, Floralie, Gypsy Blood, Lady Sackville, Morden Pink, Pink Spires, Rose Gleam *Roseum superbum*, Rosy Glow, The Rocket, Brightness, Dropmore Purple, Flashfire, Florarose, Happy Morden Gleam, Morden Rose, Purple Dwarf, Robert, Rose Queen, Rosy Gem, The Beacon and *Tomentosum*.

"All of these plants can produce viable seed and are a threat to Alberta's wetland habitats," says Cindy Verbeek, Alberta Agriculture, Food and Rural Development's Purple Loosestrife Eradication Program co-ordinator.

Verbeek explains that the Purple Loosestrife Plant Exchange Program allows gardeners to exchange their *Lythrum* for an alternative 4" perennial at no cost, or for an in store discount (some limits apply). To find a list of greenhouses participating in the exchange program visit Alberta Agriculture's website at www.agric.gov.ab.ca and follow the links "Pests", "Weeds", "Eradication programs".

For more information about the Purple Loosestrife Plant Exchange Program, contact Cindy Verbeek in Edmonton at (780) 422-2240. Government numbers are toll-free by dialing 310-0000 to connect to a RITE operator.

Contact: Cindy Verbeek
(780) 422-2240

Agri-News Briefs

'99 Hort Congress highlights value-added

Value adding is one of the themes of the 1999 Hort Congress. Growers will enjoy sessions on the value adding of Saskatoons by Joe Mazza, Summerland Research Centre; herbal preparations by Robert Rogers, Self Heal Herbal; ginseng by Laurie Roberts, Ginseng Growers Association; and, medicinal herbs by a representative from Chickadee Farms. The Congress will be held at the Mayfield Inn and Suites, November 11 to 13, 1999. Programs and registration forms will be available by August 30 and distributed by the sponsoring associations to their members. Anyone not a member of Landscape and Nursery Trades Association (LANTA), Fruit Growers Society of Alberta (FGSA), Flowers and Herb Growers Society of Alberta (FHGSA), Alberta Market Gardens Association (AGMA) or the Alberta Greenhouse Growers Association (AGGA), should phone (780) 415-2324 or fax (780) 998-7776 to be placed on the mailing list. For further information, contact Shirley Alton, Congress coordinator, in Edmonton at (780) 425-2324.

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August 23, 1999

Roses, roses, roses

Often thought of as Queen of the Flowers, roses are a gardeners favorite. Growing roses, especially tender ones like teas and floribundas, can be a trial on the Prairies.

Covering roses to get them through the winter isn't always a guarantee that they'll flower again the following year. Don't despair, two outstanding series of roses developed in Canada, the Explorer and Parkland series from Agriculture and Agri-Food Canada (AAFC) are hardy and unique. These roses have been bred to grow on their own roots.

"AAFC roses are winter-hardy to temperatures of -35C with snow cover," says Shelley Barkley, information officer at Alberta Agriculture, Food and Rural Development's Crop Diversification Centre South in Brooks. "Gardeners may see some winter injury to the canes, depending on the year, planting location and snow cover, but the roots will survive. Once the damaged canes are removed, the plant will send out new canes that will reward the gardener with color throughout the summer."

Breeders selected roses for these series based on hardiness, flower and leaf color, flowering period and disease resistance. AAFC roses come in a wide range of flower color and plant size, and will produce flowers throughout the growing season, with major displays in June.

"The Explorer series, out of Ottawa, began by focussing on the large rugosa type shrubs, followed later by more compact plants with various flower colors, finer leaves and few thorns," says Barkley. "Parents picked for roses in this group provided genes for disease resistance, hardiness and climbing. The Parkland series used the native prairie rose for its adaptability to cold winters and tolerance to hot dry summers. These plants have a variety of growth habits as well, but tend to be smaller shrub-type roses. The repeat flowering and flower quality characteristics for both came from hybrid teas and floribunda roses. Pruning of the spent June flowers in either group of roses helps promote repeat flowering."

Roses with names like Henry Hudson, Alexander MacKenzie, John Cabot and William Baffin belong to the Explorer series. John Cabot and William Baffin are climbing roses with strong arching canes that can be up to three metres long.

"The John Cabot flowers are fragrant, a medium red and are double," adds Barkley. "Winter killing of the canes can happen. By pruning out the dead wood, the plant will reward

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AGRICULTURE, FOOD AND RURAL DEVELOPMENT

you with new growth and flowers later on that season. William Baffin's semi-double flowers are medium red with a slight fragrance. There can be as many as 30 flowers in a cluster on this plant. William Baffin suffers less from winter damage than John Cabot, but both can be left on trellises for the winter. John Cabot can be grown as a large shrub as well with rambling, arching branches."

Henry Hudson is a small plant, only 0.5 to 0.7 m tall. The semi-double flowers are white with a pink blush, resembling apple blossoms in color. Alexander MacKenzie is a vigorous shrub rose, growing as tall as two metres.

"The double flowers are deep red and are borne in clusters of six to 12. If looking for a rose that resembles a hybrid tea or grandiflora, with the hardiness of a shrub rose, this is the ticket," suggests Barkley.

Names like Adelaide Hoodless, Cuthbert Grant, Hope for Humanity and Morden Ruby, all belong to the Parkland series. Adelaide Hoodless grows to about one metre. The plants produce large clusters of red, semi-double blossoms.

"Cuthbert Grant was named Manitoba's Centennial Rose in 1970," continues Barkley. "This is an upright-growing shrub with fragrant, dark red, velvet flowers that are about 10 cm in diameter. One very severe winter, this rose was killed back to the ground in the Rose Garden at the Crop Diversification Centre South in Brooks, but by mid-summer the plant was covered with flowers."

Hope for Humanity, what could be a better name for a rose that honors the 100th anniversary of the Canadian Red Cross? This is a low growing rose, only 0.5 m tall and 0.6 m wide. The plant produces double, blood red blossoms for a 10 to 14 week period. The pointed flower buds and the foliage resembles hybrid tea roses.

In the Parkland series, six of the roses have Morden in their name, making identification in a garden centre easy. References say that Morden Ruby is a red flowered, but it really is more of a ruby pink with darker pink flecks in the petals. The plant is about one metre tall and blooms repeatedly through the growing season.

"There are more excellent roses in these two series and many other hardy roses that deserve to be in any gardeners yard," says Barkley.

Alberta Yards and Gardens: What to Grow, an Alberta Agriculture publication, has a section on roses, their care and plant descriptions. This book is available for sale at all Alberta district offices and at the Publications Office, located in the J.G. O'Donoghue Building, 7000 - 113 Street, Edmonton, AB T6H 5T6. Cost of the publication is $15 plus GST (add $2 plus GST for shipping and handling).

So come on – smell the roses!

Contact: *Shelley Barkley*
(403) 362-1305

Alberta youth attends Newfoundland Young Foresters' program

Jackie-Ann Hansen doesn't know exactly what to expect when she arrives in Newfoundland in late August, but she knows one thing – she's going to get dirty.

Seventeen-year-old Hansen, a member of the Gilby 4-H Beef Club in the Rimbey-Bentley area, is spending August 25 to 28 at the Young Foresters' Camp near Gander, Newfoundland. She was the only Alberta 4-H delegate to be awarded this trip at the Provincial 4-H Selections program held last May. Hansen says she's looking forward to this trip because she's never been outside of Alberta or British Columbia before.

"This is new. I've gone to 4-H camps before, but nothing like this," she says. "Young Foresters is a camp where you learn about the forest environment. I think it's out in the bush, and you do a lot of group and compass work."

The Young Foresters' Camp, sponsored by the Alberta 4-H Programs Trust, is aimed at giving participants a greater appreciation of the importance of the forest in people's lives by teaching tree, plant and insect identification, forest management and other skills.

This is right up Hansen's alley, as she begins work on her degree in Environmental and Conservation Sciences at the University of Alberta this September.

"I'm thinking of working for the government in land reclamation after my degree."

A home stay with a Newfoundland family is also planned for part of the trip. This should give Hansen a chance to see east-coast culture first hand. This suits Hansen just fine.

"I'm hoping to meet new friends. It should be a good trip,"she says.

For more information on joining 4-H, call (780) 422-4H4H (toll free through the RITE line at 310-0000) or visit the 4-H web site at: **<www.agric.gov.ab.ca/4h>**.

Contact: *Marguerite Stark*
Provincial 4-H Programs Specialist
(403) 948-8510

New Made in Alberta *internet store*

A new Alberta-based website is among the first of its kind in Canada to market small-scale, niche-market producers who employ environmentally sustainable resource practices.

Now open for business, the Round River General Store is designed for easy access through the Internet at

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<http://www.LandStewardship.org>. An annual mail catalogue is also available upon request.

The Land Stewardship Centre of Canada developed the store with major support from the Agriculture and Food Council – Canadian Adaptation and Rural Development Fund. It operates as a non-profit venture with costs for promotion and administration being offset by sponsorships, user memberships/donations, and supplier registration fees. The site is free for public use.

"The Centre is another method of getting Alberta made, Alberta grown and produced products to a wider audience," says Barb Shackel-Hardman, the conservation information resource co-ordinator at Alberta Agriculture, Food and Rural Development.

From Alberta wool quilts, beeswax candles, flaxseed soap and buffalo-hide gloves to foodstuffs and furniture made from recovered wood, the Round River General Store aims to meet human needs for useful products. It brings a rich diversity of locally produced items to the attention of a growing number of environmentally conscious consumers.

"The store was set-up as a virtual co-op and will complement existing community farmers' markets and local specialty shops, making it easier for consumers to find out where and what is available at any time," explains Kerry Grisley of the Land Stewardship Centre of Canada, the non-profit charity co-ordinating the General Store.

"The Round River General Store will bring a rich diversity of locally produced items to the attention of environmentally conscious consumers. The items shown aren't produced in the millions from a factory and can't be found on the shelves of mega-stores. The availability of all items listed depends entirely on the renewable bounty from the land that can be sustained over the long-term," adds Grisley.

Currently, there are approximately 30 products online. The Store's goal is to have 100 to 150 products online by the fall of 1999. To make browsing easier, the store is divided into the following departments:

- Household items
- Clothing
- Kitchen Pantry
- Bookshelf – Kids' Literature
- Bookshelf – General
- Resources, etc.
- Community Shared Agriculture
- Supplies and Gear
- Personal Care

The Round River General Store is a major feature of the Land Stewardship Centre of Canada's Land Stewardship Resource Centre website. The site contains a wealth of references on best available resources, websites, conservation programs, contacts and practical tips concerning water quality, biodiversity, grazing management, homes and gardens, private woodlots, conservation tillage and more.

"With the number and diversity of organizations involved in conservation planning, this website provides one-stop shopping for anyone interested in finding conservation information," notes Shackel-Hardman.

For more information, contact the Land Stewardship Centre of Canada, Suite 1140, 13 Mission Avenue, St. Albert, Alberta, T8N 1H6, phone (780) 458-5700, fax (780) 458-0312 or e-mail **<Lsc@compusmart.ab.ca>**. Information is also available by calling Kerry Grisley or Ken Gurr at (780) 458-5700 or e-mail **<Lscgrisley@compusmart.ab.ca>** or **<Lscgurr@compusmart.ab.ca>**.

Contact: *Ken Gurr* *(780) 458-5700*
Barb Shackel-Hardman *(780) 427-3587*

Keeping good records on the farm

The best defence to answer challenges to environmental management practices is to have written proof of your decisions and compliance record.

"Building and maintaining a good filing system is the key to good record management on the farm," says Marvin Salomons, pork specialist with Alberta Agriculture, Food and Rural Development in Red Deer. "For example, good manure management records are essential to maximizing nutrient value of manure. Good records also mean producers have a record of operations, how the product was stored and handled."

The following is a starting point for a record system:

Buildings File

- legal description and aerial photograph of the site
- provincial or local building site permits and approvals
- pictures and reports of building progress and remodelling
- names and phone numbers of contractors and suppliers
- names and phone numbers of consultants
- water well or storage approvals and tests reports

Animals and Feed File

- type and source of breeding stock
- records of animal stocking dates, rates and weights
- animal manure production volumes
- animal and wash water use rates
- record of feed suppliers, feeds types and delivery dates
- record of feed additives, medications, veterinary visits

Cont'd on page 4

Manure Storage File

- descriptions and sizes of manure storage facilities
- soil and liner permeability test results
- inspection reports, approvals and consultants names
- blueprints of all manure containments as they are built
- pictures of all manure storages
- record of manure additives
- test profiles of lagoon manure samples from each layer

Manure Application File

- legal descriptions, field and farm maps
- soil testing results
- crops grown and yield histor.
- crop rotation strategies and procedures
- manure application rate calculations
- manure nutrient test results
- amounts of commercial fertilizer used
- daily, weekly, monthly manure application maps
- manure hauling, application methods, and equipment
- weather conditions on application dates
- travel routes from manure storage to fields
- detailed run-off and spill contingency plan
- custom manure applicator names and phone numbers
- list of neighbors and phone numbers
- standard operating procedure for all manure handling

Off-Site Manure Application File

- signed owner agreements
- legal description of sites
- manure application procedures
- detailed restrictions or conditions
- detailed routes of travel
- detailed manure spill contingency plan
- list of neighbors and phone numbers
- custom applicator agreements and phone numbers
- standard operating procedure for all manure handling

"This list is by no means complete," says Salomons. "The information to be kept on file depends on the type of operation. It's very helpful should a situation ever arise where a producer needs to defend their actions against pollution or odor complaints."

Contact: *Marvin Salomons*
(403) 340-5336

Know where the roots are

It's a common practice on the Prairies to cultivate in the field, garden and around trees. Often rototillers are used to churn up the soil in spring and fall to work the ground deep, especially in gardens. This deep cultivation around trees, however, is hard on their root system. For a tree, it's is like having part of its digestive system cut away.

"Large trees can have thousands of feet of root system," says Shelley Barkley, information officer at Alberta Agriculture, Food and Rural Development's Crop Diversification Centre South in Brooks. "Much of this root system is out beyond what is commonly referred to as the drip line. The drip line is the circle around a tree at the tips of the branches and is the place where it's often recommended to add fertilizers or soil drench insecticides. However, tree roots can be found from the tree at a distance of at least twice the height of the tree crown."

Most trees don't have a tap root. Instead, their roots spread. Some roots are deep. These supply moisture and stability. Over 95 per cent of a tree's roots are within the top one metre of soil and can be as shallow as 7 to 10 centimetres, or 3 to 4 inches.

"Tree roots grow where the soil temperature moisture, aeration, pH nutrient supply and soil structure is correct," continues Barkley. "Tree roots don't seek water, they grow where the moisture is available. This means tree roots won't bore holes into sewer lines. If the sewer line is leaking, the roots will naturally grow there. Generally, the best environment for root growth is in top few feet of soil. The greatest number of roots will be at soil surface – just under the leaf litter in a forest or intertwining with grass roots in the lawn."

Deep cultivation will cut through roots. Trees will respond in many ways.

Barkley explains, "A sample of caragana that had leafed out and then began to wilt and die was sent into the lab at Brooks. The diagnostician concluded that cultivation 15 cm in depth had been done at a vulnerable time in the plant's leafing out process. Some trees, such as poplars, will respond by sending out suckers, but they too can get 'stressed' as their root system is pruned time and again. Spruce and pine may lose more needles in the fall or spring than they normally would."

Although deep cultivation isn't often diagnosed as the direct cause of decline in trees, it does add to stress levels.

To manage the cultivation cycle and improve the health of trees:

- cultivate no deeper than about 2.5 centimetres (one inch), just breaking the soil surface
- grass in around trees, at least between the rows of shelterbelts
- mulch with straw, grass clippings or bark chips to cover the soil.

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Mulching keeps the roots cooler, maintains soil moisture levels and helps keep weeds down. Mulch may have to be pulled back from the trunks of trees for winter to prevent mouse damage.

Contact: *Shelley Barkley*
(403) 362-1305

Agri-News Briefs

Mind your berries

As summer progresses, field berries may be at various stages of development. For strawberries, it's important to maintain good weed control as dandelion and chickweed infestations can increase tarnish plant bug damage in day-neutrals. Monitor for diseases and if necessary, apply the appropriate fungicides. If moisture conditions change, be sure to keep a close eye on soil moisture levels. In cases where rainfall isn't sufficient, continue irrigating during the runnering stage of Junebearers. Nutrients, primarily nitrogen, should have been applied as soon as Junebearer harvest was completed. Another fertilizer application should be made to Junebearers again in mid-August. Day-neutral strawberries require continual nitrogen feeding until the end of August. For raspberries, monitor for spider mites and control them if required. Remember to increase soil moisture levels as fruit matures. It's also time to prune out diseased plant material in the Saskatoon stands. With harvest complete, soil moisture can be reduced to encourage plants to harden-off. For more information, contact Lloyd Hausher, provincial fruit crops specialist with Alberta Agriculture, Food and Rural Development.

What kind of bug is that?

Alberta Agriculture, Food and Rural Development's Backyard *Pest Management in Alberta* publication is an excellent reference manual for identifying insects, diseases and weeds that can be a problem in Alberta gardens and yards. The book contains answers to over 150 common pest problems, gives suggestions on alternatives to pesticides and outlines the proper use of pesticides ensuring that safety is the first consideration. It contains practical, cost-effective solutions to pest-related problems. Copies of the book are available for $5 plus GST at all Alberta Agriculture district offices and from the Publications Office, 7000 - 113 Street, Edmonton, AB T6H 5T6 or by calling 1-800-292-5697. Please add $2, plus GST, for mail order shipping and handling.

Arboriculture conference

The International Society of Arboriculture is hosting its 13th Annual Prairie Chapter (Alberta, Saskatchewan and Manitoba) Conference in Sherwood Park, Alta. on September 1 to 4, 1999. The conference is being held at Festival Place. It's targeted at people in the tree care business, including: municipalities, utility companies, golf courses, horticulturists, landscape architects, and others who are concerned about tree disease, tree planting and disaster planning. Conference sessions begin at 8:00 a.m. on September 1 and end at 5:30 p.m. on September 3. Session speakers are coming from across the Prairie Provinces and the United States to make presentations on new methods of tree care, plant diseases, DNA fingerprinting of elm trees, caring for existing trees and water conservation. Attendees will also learn how to do tree inventories and evaluations. The conference winds up on September 4, with the tree climbing championship. This event is being held at the Trees of Renown (11.3 km north of Hwy 16 on Clover Bar Road, next to Sherwood Park). The climbing event starts at 8:30 a.m. and runs until 5:00 p.m. An amateur and children's tree will be available, along with coaching for families and non-climbers. To register or for more information on the conference, please call Sheila Deurloo or Kelly Vandergrift at (780) 464-8496 or e-mail vandergr@strathcona.ab.ca. The cost of the conference is $220 for members and $260 for non-members. For more information on the tree climbing event, call Blair Veitch at (780) 497-0166.

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Agri-News

August 30, 1999

National organic agriculture standard

The Canadian General Standards Board recently released the standards document for organic agriculture in Canada. The publication gives a description of what organic agriculture is, the general principles of organic production and outlines the procedure a producer must follow for crop and livestock to qualify to be certified organic.

"The Canadian organic standards have been worked on for over a decade," says Mike Dolinski, member of the Committee on Organic Agriculture and entomology specialist with Alberta Agriculture, Food and Rural Development, Edmonton. "Over 60 members of the Committee on Organic Agriculture worked diligently to establish a standard that provides a balanced approach to organic farming and production."

The bulk of the report details recommended practices for crop production, livestock production and specific production requirements. It also outlines acceptable methods of storage, transportation and processing of organic products. An exhaustive list of acceptable inputs and substances are also featured in the appendices.

The standards outlined in the report must be adhered to before a product can be labelled organic. Only products that conform to the standard can be labelled *Certified Organic* in accordance with this standard.

The general principles of organic production are:

- protect the environment
- minimize soil degradation and erosion
- decrease pollution
- optimize biological productivity and promote a sound state of health
- replenish and maintain long-term soil fertility by optimizing conditions for biological activity within the soil
- maintain diversity within and surrounding the enterprise and protect and enhance the biological diversity of native plants and wildlife
- recycle materials and resources tot he greatest extent possible within the enterprise
- provide attentive care that promotes the health and behavioral needs of livestock
- maintain the integrity of organic food and processed products from initial handling to point of sale

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This Week

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"For producers contemplating conversion to organic production, a portion of the report outlines the required steps and procedures," says Dolinski. "The conversion period must involve taking all the steps required to fully comply with the standard."

Crop products can't be labelled or marketed as *Certified Organic* until the standards have been fully applied on the crop land in question for at least 24 months and no prohibited substances have been used for at least 36 months prior to crop harvest. Livestock can only be labelled as certified organic if the conditions of veterinary care and animal well-being have been complied with for no less than 90 days.

Organically raised livestock must be fed feeds that are certified organic for a specific period of time based on the type of livestock:

- eggs – laying hens must be fed certified organic feed for at least 30 days
- milk – milking livestock must be fed certified organic feed for at least 12 months
- meat – slaughter livestock must be fed only organically certified plant-based feeds. Rendered animal feed products are prohibited

"A comprehensive production plan must be prepared by any producer considering applying for organic certification," says Dolinski. "It's always been important for Alberta producers to keep good records of their business from year to year. It's essential for producers considering organic agriculture to keep good records of all inputs, types of production and management practices."

The national standard is also harmonized with the recently approved Codex Alimentarius Guidelines for the production, processing labelling and marketing of organic food. These guidelines are the first step towards official international harmonization of the requirements for organic products in terms of production and marketing standards, inspection arrangements and labelling requirements. With respect to emerging environmental issues, the Canadian Organic Standard is expected to play an important role in reducing the use of synthetic pesticides and lowering rates of nitrate leaching, soil degradation and greenhouse gas emission levels, while enhancing biodiversity and sustainability.

Copies of the National Standard of Canada for Organic Agriculture are available by mail from the, Canadian General Standards Board Sales Centre, Ottawa, Canada K1A 1G6; by phone toll free at 1-800-665-CGSB (2472); by fax at (819) 956-5644; or by e-mail <ncr.cgsb-ongc@pwgsc.gc.ca>.
Individual copies are $48 plus GST.

Contact: Mike Dolinski
(780) 422-4873

Add some flower power to your food

Imagine a wedding cake decorated with flowers that taste as wonderful as they look, a squash flower filled with a savory meat mixture or a colorful sprinkling of pansies added to a tossed salad. The possibilities are endless, and intriguing enough to spark interest of even the least adventurous cook.

Edible flowers were once the rage. They graced tables and plates of kings and queens. In salads or as a low-calorie garnish in soups and beverages, using flowers is making a come-back. "If you're looking to liven up your table, you might want to experiment with flowers," says Shelley Barkley. "Both petals, whole or chopped into colorful confetti, and whole flowers can be used to add unique flavor and intriguing aroma. Not all flowers are edible, in fact there are some that are poisonous, so you're best to consult culinary books or other sources for lists of flowers that are safe to eat."

Summer presents so many taste opportunities for the daily menu. Fresh oregano, dill, chives sage and thyme have always been appreciated as those little extra ingredients only enjoyed in the warmer months. You can now add bee balm (monarda) borage, calendula, daylily, gladiolus, nasturtium and squash flowers to the list.

"Before you snip off all of the blooms from your snapdragons, try one. Each flower tastes as different as lettuce does from spinach" adds Barkley. "Flowers are best when fresh. Collect the blooms early in the day, when the dew is still on them or has almost dried. The petals may be rather fragile so handle with care to avoid bruising. Wash them if necessary and pat dry gently."

You can store flower petals and blossoms in plastic bags of tightly sealed glass jars in the refrigerator until needed. Shelf life for flowers is about one week, if handled and stored carefully. But sure to use only flowers that are free of chemical pesticides.

"Roses of any variety are edible. Rose petals, candied, sugared or simply strewn in a punch bowl, add something ethereal," says Barkley. "The base of rose petals are quite bitter, so it's advisable to trim the petals to remove the whitish base. Most flowers that have hard centres, such as roses and chrysanthemums, can be pared so only the petals of the flowers are used."

So which flowers can grace not just our tables, but our plates? A partial list includes: apple blossom, anise-hyssop, bachelor button, basil, bee balm, borage, broadbean, calendula, carnation, chamomile, chicory, chives, chrysanthemum, daisies, dandelion, fuchsia, geranium gladiolus, honey suckle, johnny-jump-up, lavender, lemon balm, lemon verbena, lilac, kale, mint, mustard, nasturtium pansies, roses, sweet violet, thyme, tulip and violet.

Cont'd on page 3

Most flower beds boast at least a few edible flowers. If you're feeling daring and adventurous, reward yourself with not just the scent but the taste of a few blossoms.

For more information, *Alberta Yards and Gardens What to Grow*, an Alberta Agriculture publication, has a section on edible flowers. This book is available for sale at all Alberta district offices and at the Publications Office, located in the J.G. O'Donoghue Building, 7000 - 113 Street, Edmonton, AB T6H 5T6. Cost of the publication is $15 plus GST (add $2 plus GST for shipping and handling).

Contact: *Shelley Barkley*
(403) 362-1305

Calling all farm direct marketers!

Whether you operate a berry u-pick, have a farm gate sign on the highway advertising your farm's organic produce or regularly sell your jams, jellies and preserves at the Farmers' Market, you're involved in direct marketing.

"Many rural entrepreneurs go the direct marketing route because it eliminates a step between you, the producer, and your customer and puts more money in your pocket," says Karen Goad, agrifood specialist with Alberta Agriculture, Food and Rural Development, Grande Prairie. "If you're involved in an agrifood processing enterprise, direct marketing is a good way to sell your product and get immediate customer feedback."

Direct marketing of your farm products could have many layers and grow over time. For example, you may start by selling fresh vegetables at the farm gate, add a weekly visit to the local Farmers' Market and then through your Farmers' Market booth, begin delivering tomatoes and peppers to a local tea house.

Later on, you may decide to venture into a value added business using your vegetables in a dried soup base or dip mix. You can continue to just do farm gate sales for both the primary and processed items. You might sell the soup and dip mixes at a couple of local Farmers' Markets or use the market as a launching point for a retail product line.

This fall several Alberta Agriculture specialists are working with direct marketers in northern Alberta to help the industry maximize the benefits of this marketing technique. The first step is to identify direct farm marketers in the Peace area and the direct marketing channels they are using. The next step is to look at regional problems encountered, industry issues and assistance required by Peace area entrepreneurs using this marketing channel. The end result will be a network of support and new resources that farm direct marketers can use to expand their market and increase their business profits.

If you'd like more information on this initiative, call Karen Goad (780) 538-5285. For information on direct marketing strategies, call any one of Alberta Agriculture's agrifood specialists: Karen Goad (780) 538-5285; Karen Hoover (403) 381-5814; Joyce Lencucha (403) 340-5358; Sue Tenold (403) 948-8504 or the rural development specialist – business at the nearest Alberta Agriculture. For toll free access to government numbers, dial 310-0000 first.

Resources for Food Processors

- Check out the new business development site on Alberta Agriculture's website **<http://www.agric.gov.ab.ca/bizinfo>**
- The Peace Value Added Food and Ag Association is up and running. For more information on this new organization for rural processors, check out its web site at **<http://www.pris.bc.ca/psp>**. Some of the activities the association is involved in include: developing commercial community kitchen facilities in Dawson Creek in co-operation with Northern Lights College and near Sexsmith in co-operation with Down To Earth Greenhouses; publishing a full color brochure for marketing Peace Country products; co-ordinating association member participation in the electronic commerce shopping cart project and the First Annual Canada's Peace Country Food Fest planned to take place in Grande Prairie, September 20 to 21, 1999.
- Grande Prairie District Office resource library including diversification and food processing business development resources and our public access internet computer.

Contact: *Karen Goad*
(780) 538-5285

Hog manure application equipment evaluation

The application of manure has become a concern for society. It's one of the issues that must be addressed in an expanding livestock industry.

"The *Aerway* manure applicator is being evaluated as one tool to assist hog producers with sustainable liquid manure application," says Kevin Yaremchuk, regional conservation technologist with Alberta Agriculture, Food and Rural Development, Vegreville.

Several factors must be addressed when dealing with manure application equipment. It must be able to apply the manure:

- with minimal odor release;
- at a consistent, accurate rate that enables the producer to match the nutrient content of the manure to nutrient requirements of the crop;

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- in a manner that will not allow the manure to leach through the soil profile
- in a manner that prevents surface runoff and prevents losses to the atmosphere
- on a number of field conditions, including the ability to apply manure in forages and direct seeded crops
- in an economical manner with a reasonable purchase price, maintenance costs and operating costs.

"Equipment meeting these criteria are currently under development and the *Aerway* is one of those machines," says Yaremchuk.

Several methods of applying liquid hog manure are being tested with the cooperation of landowner Leigh Babcock and hog producer Glenn Flanders (Pigpen Hog Farms) near Elk Point. A demonstration is being done on a direct seeded oat crop, comparing the *Aerway* to splash plate, surface banding and injection at two application rates (7000gal/ac and 3500 gal/ac). Nearby, on a pasture that has similar treatments, an evaluation comparing the *Aerway* to splash plate and surface banding is being done at the two application rates. The *Aerway* has also been demonstrated at Red Willow Hog Farm near Gadsby and Elite Swine Inc. near Strathmore.

"The *Aerway* manure applicator is a combination of two main components," explains Yaremchuk. "The basic *Aerway* is a tool used to aerate sod. It does this by cutting holes into the sod with a row of eight inch knives spaced six inches apart. On the basic machine, a distribution manifold is mounted containing a rotary cutter to mince solids. From there, hoses distribute the manure near ground level into the holes made by the rotating knives of the *Aerway*. The manure is applied evenly and with less soil disturbance than injection equipment. The machine is simple and rugged, important criteria for industry acceptance."

The *Aerway* is versatile and can be used on cultivated land, pasture, hay land or zero-till crop land. This extends the window available for the application of manure. Other benefits include a reduction in odor (compared to splash plate) and the ability to maximize the nutrient potential of the manure because the manure is released directly into the soil.

"Finding new ways to handle liquid hog manure in an environmentally sustainable manner has brought the collective wisdom of a researcher, technology transfer people, industry and producers together on this project," says Yaremchuk. "Using this group dynamic to address the problem results in much quicker, useful results and immediate industry adoption."

The researcher on this project is Dr. Shabtai Bittman from Agriculture and Agri-Food Canada's Pacific Agri-Food Research Centre at Agassiz, B.C. The technology transfer people from Alberta Agriculture, Food and Rural Development include: Art Lange – pork specialist, Dale Chrapko – conservation coordinator and Kevin Yaremchuk – conservation technologist. The industry people are Dan Kinsella of Sher-Dan Enterprises, a custom manure applicator out of Alix, AB and Holland Hitch of Surrey, B.C., the manufacturer of Aerway. The cooperating producers are mentioned previously in this article.

Contact: *Kevin Yaremchuk*
(780) 853-8227

Early weaning an option

The thought of early weaning calves usually bothers cattle producers, but it's an option that has several advantages.

"People don't like early weaning because they think a calf won't grow without milk," says Jeff Millang, a beef specialist with Alberta Agriculture, Food and Rural Development in Olds. "That isn't the case, as calves are capable of eating and digesting roughage and grain at three weeks of age."

Research shows that with proper management and feeding, early weaning can result in calves equal in weight to calves raised on the cow. An Oklahoma study found that calves reared in a dry lot, weaned at about the same weight as calves raised on the dam. The study also found that early weaning improved heifer conception rates from 59 per cent to 97 per cent. Heifers with early weaned calves also gained more weight in the fall.

Another study, done in Kansas, compared calves weaned at 50 days of age with herd mates receiving creep feed or another group allowed to nurse their dams in a dry lot without creep. During a trial period of 107 days, the early weaned calves gained more that either of the other two groups.

Millang explains that often an early weaned calf will actually do better because in late August and September the grass has matured and lost much of its nutritional value, causing the cow's milk quantity to go down. The combination of less milk and less nutrients in the grass makes it difficult for a cow to sustain a calf.

Removing the calf from the cow means the cow will also do better. It will stop lactating and gain body condition, even on poorer quality forage. In addition, the cow doesn't have to compete with the calf for the grass that is available. This extends the grazing season further into the fall and potentially reduces the number of winter feeding days, when feed is the most expensive.

"In most cases, early weaning will mean feeding the calves in a dry lot, but they will do just as well on separate pasture," notes Millang.

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Weaning early also gives the producer more flexibility with the feeding and marketing of calves. The producer can feed the calves himself or place them in a custom feedlot. Weaning also allows the producer to sell the calves at his convenience – when they reach the right weight, on a certain date or when the market price dictates selling.

"With proper feeding management, early weaned calves can grow as rapidly as they would have in a nursing situation," emphasizes Millang.

He suggests classifying early weaned calves into several different age groups and managing these groups differently. Four classifications that should prove adequate are: under six weeks; six weeks to three months; three to six months; and, six months and older.

All early weaned calves should be started on feed about three weeks prior to weaning to ensure the calves start eating.

Calves over six months of age should require no special treatment other than proper care and feeding. This means feeding good quality hay and a small amount of grain. Two to four pounds of grain per day should ensure that they grow at a rate equivalent to if they were allowed to nurse.

Calves that are weaned from three to six months of age should be fed rations containing at least 12 to 14 per cent protein. It may also be useful to add enough molasses so that the calves are eating at least three per cent of their body weight.

Millang recommends putting weaned calves on the best pasture available and creep feeding if necessary. The cows can be put on the poorer pastures.

"The results will be bigger calves that are ready for the stress of going into a feedlot, and cows that are in good shape and cheaper to winter," says Millang.

Contact: Jeff Millang
(403) 556-4220

4-H'ers find new ideas for club activities at Project Congress

Bring 52 people together and give them a diverse selection of hands-on activities, and what do you get? For the participants in the Third Annual Alberta 4-H Project Congress, they got to have fun while learning new activities to take back to their local clubs.

"The purpose of Project Congress is to expose the delegates and leaders to new knowledge and give them ideas for future projects," explained Andrea Helten, Alberta 4-H resource development coordinator.

Sponsored by UFA, Lammle's Western Wear and 4-H Programs Trust, the congress was held July 28-30 at Olds College. Participants learned everything from woodworking and textile dying, to rope making and recycling discarded household items into arts and crafts. There was even a physical session where delegates got to try kick-boxing. Project Congress was also a chance for delegates to make new friends and contacts within the 4-H organization.

"This is another opportunity for members to mix with other non-livestock clubs," said Helten.

Nine-year-old Scott Redington, of Fort Assiniboine, was particularly enthusiastic about that facet of the program. "I made eight new friends," he said proudly on the last day of the congress. "I thought is was pretty fun doing the rope making and making all kinds of things out of stuff you could throw away."

Fellow 4-H'er James Flemming, 12, also of Fort Assiniboine, agreed. "I liked the automotive workshop because I'm really into car engines. I'd suggest other 4-H'ers come, because it's a place you can make new friends, and it's a really fun place to be on your summer holidays."

Keynote speaker Anne McEwen, from The Motivation Source in Edmonton, gave the participants a little advice as the congress wrapped up. "If you try to be brilliant at the basics, you will be successful. Nobody is successful by doing the big things well. You've got to do the small things well."

Helten says that overall, she is pleased with how Project Congress ran this year, and that the variety of activities were so well received by the delegates. "It has grown over the past three years in terms of the number of events. The evaluations from this year will determine where it goes in the future."

For more information on joining 4-H, call 422-4H4H (toll free through the RITE line at 310-0000) or visit the 4-H web page at **<www.agric.gov.ab.ca/4h>**

Contact: Carol Sullivan
(780) 422-4H4H

Rural child care resource available

Lessons Learned...Roads Travelled is an exciting resource package that is designed to help rural communities think about and act on their child care needs.

The resource package includes a workbook and a four-part video series, along with several additional materials. The package illustrates the importance of proper child care no matter where you live and emphasizes the no matter what size your community is, it's possible to create a safe and caring place for children while you work.

One of the videos is highly recommended by Eric Jones, a farm safety specialist with Alberta Agriculture, Food and Rural Development in Edmonton.

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"Every farm family needs to see this video," says Jones of *Safe Children Are No Accident - Rural Child Care and Farm Safety*.

The video looks at issues associated with raising children on today's farms. Some of the topics discussed include:

- the number of children injured and killed on Canadian farms
- poor child supervision habits
- the increased dangers of today's farms
- the costs of a farm accident or fatality
- the changing roles and demands on farming parents
- the options available for keeping children safe

"This video takes a good look at the realities of raising children on today's farms – with bigger equipment, larger livestock herds, and more pesticides and chemicals," says Jones. "It emphasizes the importance of good supervision and provides some viable options for making the farm a great place to raise children."

At one point in the video the author Carol Gott notes that she was appalled at some of the child care choices people made. She goes on to mention: leaving a child alone in a house with a baby monitor while the parent went out to work in a barn; leaving children to play in an empty pen in a barn while doing chores in another part of the facility; and, leaving children to play at the side of a field while doing field work.

Gott attributes these poor choices to people feeling they have no other options. ***Lessons Learned...Roads Travelled*** lets rural communities know that there are other options and that they can indeed keep rural children safe.

The video was produced by Glenroy Productions Ltd. and the project was funded by the federal government. The resource package is available at no charge and can be obtained by contacting: Eric Jones at Alberta Agriculture, Food and Rural Development, Farm Safety Program, 2nd Floor, J.G. O'Donoghue Building, 7000 - 113 Street, Edmonton, Alberta T6H 5T6 or phone (780) 427-4231, fax (780) 422-7755, e-mail jonese@agric.gov.ab.ca

Contact: Eric Jones
(780) 427-4231

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Agri-News Briefs

Alberta SPCA looks for Farmer of the Year

If you know of a farmer who takes exceptional care of his or her animals, the Alberta SPCA would like to hear from you before Sept. 15, 1999. Alberta SPCA is now taking nominations for its 1999 awards. The Farmer of the Year Award is presented annually to a successful farmer who shows concern for both the physical and psychological well-being of animals. Nominees could also be someone who uses alternatives to intensive livestock systems or has modified an intensive system to better suit the animals. Past recipients include:
1998 – Dylan and Colleen Biggs of Coronation;
1997 – Murray Roeske of Alcomdale; 1996 – Hazel George of Airdrie and Jerry and Sandra Kitt of Goodfair;
1995 – Rod Chernos of Airdrie; 1993 – Maria Diamond of Didsbury; 1992 – John and William Bocock of St. Albert; and,
1991 – Bill and Sheila Gonek of Alcomdale. The deadline for submitting nominations is Sept. 15, 1999 and the awards will be presented on Oct. 16, 1999. For information or to receive an official nomination form, contact: Alberta SPCA Annual Awards, 10806 - 124 Street, Edmonton, Alberta T5M 0H3, phone (780) 447-3600 or fax (780) 447-4748.

Fall and winter courses at the DBG

The fall and winter course calendar for University of Alberta's Devonian Botanic Garden (DBG) is now available. From a day course on wintering water gardens, landscaping with native plants or fall pruning, to courses that run one day or evening each week for three or four consecutive weeks on topic such as Japanese Gardens - a beginner's course to residential landscape design for acreages, the DBG has lots to offer. Again this year, DBG is offering the Master Gardener Program for people with a high level of interest in gardening. It runs from September 8 to December 15 each Wednesday from 9:00 a.m. to 4:00 p.m. For further information on the courses available through the DBG, contact the Garden information line at (780) 987-3054 or visit the DBG internet homepage at <**http://www.discoveredmonton.com/devonian/**>.

Agri-News

September 6, 1999

Crop Diagnostic Field School looks to 2000

Although not all of this year's work is complete at the Ellerslie Crop Diagnostic Field School, organizers are already looking at what they might improve or change for next year.

"We always want to be just a little bit bigger and better each year, but what's more important to the people behind the school is that we continue to deal with what's hot in the field – the new herbicides, the new problems and the new bugs," says Jill De Mulder, the agronomy research coordinator with Alberta Agriculture, Food and Rural Development.

"It's important that we continue to focus on what's hot in the field and at the same time continue maintain the intimacy; small study groups where our clients get to talk directly to the researchers and other key members of our staff."

De Mulder notes that between the activities at Ellerslie (a fall planting school and the crop diagnostic field school) and the Dryland and Irrigation School in Lethbridge (an off-shoot of the activities at Ellerslie), over 1,500 people participated in 1999. Except for invited guests, all participants pay between $100 and $150 per day to attend. This allows for a reasonable cost recovery of time and manpower.

"Although we say we'd like to get bigger, to handle more people we need more staff and expanded facilities," says De Mulder. "We already pull staff from many parts of the department and many of those people juggle research work and holidays to be available to participate."

Dr. Ieuan Evans, a plant disease specialist with Alberta Agriculture and one of the original organizers of the school, agrees.

"We are kind of at a crossroads with the school. To grow and improve means accessing more staff and improved facilities. Right now we are working out of temporary facilities in the form of a tent. My wish list includes some permanent structures; one being a greenhouse," says Evans.

He is confident that the school will continue to be popular with chemical companies, crop adjusters, leading farmers, agricultural retailers, grain companies and Alberta Agriculture's staff because it gives people an opportunity to experience hands-on crop production, both right and wrong, in Alberta fields.

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Alberta
AGRICULTURE, FOOD AND RURAL DEVELOPMENT

Evans explains that the school provides agronomic training in critical service and diagnostic areas, it allows for discussion and communication of ideas and concerns across a wide spectrum of professionals from industry and government, and it acts as an excellent feedback mechanism through which concerns, questions and problems can be studied and answered.

"The school lets people experience all facets of growing a crop. That means hands-on problem solving regarding soils, fertilizers, weeds, herbicides, insects, insecticides, diseases, fungicides and equipment, up to and including zero tillage. We even have some challenge plots, both intentional and accidental, where those attending can try to identify what has happened to the crop – what went wrong."

"The concept is a good one. That's why the school is still around after nine years and why other provinces and countries have started their own schools based on the same concept," says Evans.

Funding for two Australian diagnostic schools was recently announced, at least partially because of a delegation visit in 1998.

"I worked in Australia for a couple of years and last year was contacted by an Australian crop advisor about bringing a group of 20 producers to Canada," says Linda Hall, a research scientist (weeds) with Alberta Agriculture. "The advisor was looking for agricultural facilities and experiences to show the tour group and I suggested they visit the diagnostic field school. They attended and later described the experience as the pinnacle of their experience in Western Canada."

"Now they have received funding to start two diagnostic schools, one in Victoria and another in South Australia," says Hall. "It's kind of neat to think that our school is influencing other parts of the world."

In addition to being recognized in other countries as being a great learning experience, the Crop Diagnostic Field School also has Certified Crop Advisory accreditation (six hours). So if it's important to you to stay on top of what is happening with Alberta's crops, the Crop Diagnostic Field School is where you want to be next summer. For more information about the school contact: Alberta Agriculture, Food and Rural Development, Agronomy Unit, 2nd Floor, Agronomy Centre, 6903 - 116 Street, Edmonton, Alberta T6H 5Z2 or phone (780) 427-7098.

Contact: Jill De Mulder *Dr. Ieuan Evans*
(780) 422-0917 *(780) 422-0719*

Riparian conference showcases resources

With water resources predicted to be one of the key issues over the next decade, Alberta's riparian management organizations are preparing for the future by holding a conference in Red Deer, October 19 to 21, 1999.

"The conference idea started with a small group of people who are concerned about riparian issues and it just grew from there," says Jackie McCall, the conference chairperson and a member of the Bow River Project.

McCall explains that water resource management and healthy riparian areas go hand in hand. She describes riparian areas as stream banks, or any area where vegetation is influenced by water, such as flood plains, backwater areas, wetlands and lakeshore. Riparian areas provide storage and filtering areas for water, and are therefore crucial to a clean and abundant water supply.

"There are so many issues dealing with riparian areas – water quality, wildlife habitat and biodiversity, subdivision development, feedlot expansion, invasive weed species – and all of them are going to be even more important over the next decade in the dry, western portion of North America," says McCall.

How Alberta is going to deal with these issues is the reason for the conference, titled, *Where Land Meets Water - Riparian Challenges for the New Millennium*.

"It's not going to be a scientific conference," says McCall. "Instead, it's going to focus on raising awareness about the issues, and showcasing available resources and key people to help improve riparian management in the future."

The conference is targeted at representatives from farm, ranch and agricultural organizations, agricultural service boards, agricultural fieldmen, municipalities, government departments, environmental consultants and individual landowners.

The conference kicks off October 19, with a couple of optional raft tours down the Red Deer River. One tour runs from 10 a.m. to 5 p.m., a second joins the first at 2 p.m. and runs until 5 p.m. Registration for the conference follows the raft tour from 6:30 p.m. to 10 p.m.

The second day of the conference features a full day of presentations, including sessions on: Riparian Challenges in Alberta by Dr. Stewart Rood of the University of Lethbridge; Riparian Challenges in the United States by Dr. Duncan Patten of Arizona State University; Understanding Water Quality by Sandra Cooke and Gerry Haekel of Alberta Agriculture, Food and Rural Development; and, Tools for Riparian Management by Greg Hale of Cows and Fish and Jay Weiliczko of the Alberta Conservation Association.

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Day three runs from 8:30 a.m. to 2 p.m. and features sessions on Alberta's policies and legislation, and presentations from a wide range of watershed stakeholders, including: the Crowfoot Creek Watershed Group, the Pine Lake Restoration Program and the Sustainable Okotoks Project. Also featured are presentations from those who are working to develop better management of riparian areas, including: Ducks Unlimited, ALPAC, Dow AgroSciences and researchers from the University of Montana, who are working with Alberta's Cows and Fish Program to develop a classification and health assessment for Alberta's riparian and wetland areas.

The conference wraps up with a session called Riparian Action in 2000, presented by Lorne Fitch of Alberta Environment.

"I'm amazed and pleased with the interest already shown for this conference," says McCall. "It looks like we will have a minimum of 150 people attend."

Registration for the conference costs $125 per person until October 8 and $175 after that. Single day registrations are $75 and additional banquet tickets are $25. The raft tours cost $35 (long tour) and $25 (short tour).

For more information, contact McCall at (403) 948-8540 or e-mail jmccall@cadvision.com.

Contact: *Jackie McCall*
(403) 948-8540

For Poinsettia, Christmas starts in August

Rooted poinsettia cuttings started arriving in greenhouses in late July and continue up to the first week of September.

"Scheduling a poinsettia crop so that the plants are ready by Christmas requires special crop management skills," says Dr. Mohyuddin Mirza, greenhouse crops specialist, Alberta Agriculture, Food and Rural Development, Crop Diversification Centre North (CDCN), Edmonton. "Growers who start their poinsettia in late July plan to have them ready for sale by late November. The growers who receive cuttings later, plan to have their poinsettias ready in early December."

Poinsettia is a photo-period sensitive plant. That means the color change, from green to red, occurs based on naturally declining day light. "The message to start changing color of leaves is received by the plants after September 21, when the day light is less than 12 hours," explains Mirza. "This daylight of less than 12 hours triggers a response in the plant to develop those big showy bracts of different colors. We now have poinsettia cultivars that range in color from red to white to pink and various shades and combinations of each."

Growers must understand how different cultivars respond to different temperatures and growth regulators. Some cultivars may not require any application of a growth regulator to make them compact and symmetrical while other cultivars need several applications of a growth regulator.

There is a 38 page publication available on growing poinsettia in Alberta. Contact Mirza at (780) 415-2303 for this free publication titled ***Growing Poinsettia in Alberta***. Government phone numbers are toll free in Alberta by dialing 310-0000 first.

Contact: *Mohyuddin Mirza*
(780) 415-2303
e-mail: mohyuddin.mirza@agric.gov.ab.ca

Endophytes in grass seed crops

Endophytes are a fungus that live within plants and may be present in some varieties of tall fescue, fine-leaved fescues and perennial ryegrasses. It is important that producers understand what effects endophytes can have on livestock if they are using straw, fall regrowth and especially seed screenings from grass seed fields.

"Endophytes benefit plants as they generally increase the vigor of the plant making it more tolerant to drought, insects, diseases, grazing and physical impacts," says Calvin Yoder, forage specialist with Alberta Agriculture, Food and Rural Development, Spirit River. "Endophytes can produce several toxins classified as ergot alkaloids: two toxins commonly identified as being harmful to livestock include ergovaline, which can be found in tall fescue or fine-leaved fescue varieties and Lolitrem B, which can be found in some perennial ryegrass varieties."

The effects of ergovaline on livestock include lower feed intake and consequently poor performance or weight loss, lower pregnancy rates, decreased milk production and vasoconstriction of blood vessels to the extremities and finally fescue foot. Lolitrem B can cause ryegrass staggers; however, the animals do not show signs of it until they are excited. The animals can experience problems ranging from tremors to severe coordination problems and falling down.

"In some cases, cattle began exhibiting signs of hoof-rot and are treated for this condition," says Yoder. "Cattle can be stabilized at this stage, but when colder weather begins, the problem grows. With 'fescue foot', the ergovaline constricts blood flow to the extremities, the feet, tail and ears, and in winter this condition causes severe swelling and frost-bite. In the U.S. where this condition is a little more prevalent, it is known as dry-gangrene when the tissue becomes necrotic due to a lack of blood flow. The eventual process is for the hoof or hooves to be sloughed and tails and ears can actually wither and fall off."

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Endophytes infect seeds, the only method the fungus can be transmitted. A plant without the endophyte cannot become infected even though the plant right beside it may have endophyte present. The seed company that supplied the original seed should be able to provide a rough idea of the percentage of endophyte in the seed. Knowing these levels in the seed provide a guideline for deciding whether to be concerned or not about the level of endophyte that could show up in straw, regrowth or seed screenings.

Feeds such as grass seed straw, fall regrowth or seed cleanings can be testing for ergovaline and Lolitrem B by sending samples to Dr. Morrie Craig's Laboratory at Oregon State University. No Canadian labs test for it, yet. Experiments and case studies conducted at Oregon State University and elsewhere have determined threshold levels of ergovaline and Lolitrem B in the diet that produce clinical disease. Threshold levels vary depending on environmental conditions and the stress levels the animals are under.

"The highest concentrations of ergovaline and Lolitrum B are found in the reproductive parts of the plant, the seed and seed screenings," says Yoder. "Straw and fall regrowth may also contain the toxins, but are present in minor quantities compared to the content in seed or seed screenings. Levels of ergovaline or Lolitrum B can vary from year to year within the same field or from one field to the next even though the same seed source was used. This means management and environmental conditions have an impact on the levels of toxin present. Generally higher rates of nitrogen and stress conditions on the plant, such as drought, increase levels of toxins."

This past winter there were three cases of endophytes affecting livestock in the Peace Country. Problems included the initial onset of lameness or sensitivity in the hind feet, distention in the hind pasterns, moderate to severe swelling and finally breaking and sloughing of one or both of the hind hooves. At one farm, some cows began to lose the hooves and feet completely. In total, eight cows were destroyed and 50 or more lost their tails and ears.

"If there are concerns as to what levels are present the safest thing to do is send a sample to get tested so at least you have an idea of what the levels may be," says Yoder. "Diluting the feed with other feed sources is another way to reduce the risk."

For additional information on endophytes or information on where to get samples tested contact Calvin Yoder at (780) 864-3597 or Brad Fournier at (780) 835-2291.

Contact: *Calvin Yoder* *(780) 864-3597*
Brad Fournier *(780) 835-2291*

Dr. L. Ady Bug – the doctor is in

The end of summer means additional field work for some members of the staff at Alberta Agriculture, Food and Rural Development's Crop Diversification Centre South (CDCS) in Brooks, and it also means the beginning of a new round of school tours.

"Part of being a good community member is the sharing of knowledge," says Shelley Barkley, communications specialist with CDCS. "Schools in the area look to us as a place where children can come and perhaps learn some new and interesting things about their community and the world."

Keeping things intriguing and fun is a big part of keeping the younger school students interested, and the school tours planned for this year have taken on a new look.

"After attending seminars on farm tourism, Dr. L. Ady Bug emerges," explains Barkley. "Dr. Bug, dressed in a lab coat decorated with numerous plastic bags, uses a variety of teaching aids and plastic bugs to help communicate with the children. She wears oversized sunglasses with bug stickers all over them, uses a fly-swatter as a pointer and has a really bad punk-rocker wig."

Dr. Bug meets the kindergarten children at the door and has them shown to the herbarium. The children sit on the floor and 'the good doctor' tells them about five or six samples of insects that they can see in Alberta. She explains life cycles, ants farming aphids and how butterflies taste. Questions are asked of the children, giving them a chance to actively participate in their visit.

"Dr. Bug relates to the children using story telling, colorful descriptions and unique anecdotes," adds Barkley. "Keeping the groups attention can be a challenge, so Dr. Bug strives to keep the tour interesting and fun."

Contact: *Shelley Barkley*
(403) 362-1305

Fall residue management critical to direct seed

Experienced direct seeders will often state that residue management begins and ends at the combine. Residue not spread properly creates seeding problems next spring such as hair pinning with disc type openers, plugging between sweeps of air seeders and drills, weed control problems, as well as, cooler soil temperatures and delayed crop emergence where piles are left undisturbed.

"It is critical that the combine being used is equipped with a proper straw and chaff spreader," says Mark Olson, agronomist with Alberta Reduced Tillage Initiative (ARTI), Leduc. "Even and wide distribution of straw and chaff with a

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spreader that will work under the very worst conditions, such as high moisture, is a must. A good straw spreader will spread 70 per cent or more of the width of cut. For chaff, 40 per cent or more of the width of cut is acceptable."

But what about farmer who would like to direct seed next spring but has missed this opportunity? Should he forget about direct seeding for another year? The answer is "yes" and "no".

"From practical point of view, seeding fields with heavy crop residues, such as barley and wheat crops, could be an exercise in futility," continues Olson. "If a producer only has barley and wheat fields and the straw hasn't been baled off, it might be worth waiting until next fall when the proper equipment on the combine can be used to spread residue. However, fields that had lower residue crops, such as field pea, or faster decomposing residues such as canola and field pea, can be easy to direct seed into."

The heavy harrow, when used at high speeds (10 - 12 mph) under hot, dry conditions, can aid in handling these crop residues. While it might not be possible to direct seed the whole farm in the first year, it is a start.

"As one farmer put it, 'Direct seed no field before it's time'. In other words, if the field is not prepared for direct seeding, then don't direct seed it," adds Olson.

Dates to mark on your calender for direct seeding information;

- **Innovator Conference For Farmers** in Vermilion, November 24 and 25, 1999
- **Southern Alberta Conservation Association Conference** in Lethbridge, November 30 and December 1, 1999
- **Direct Seeding Advantage For Industry** in Olds, December 14 and 15, 1999
- **AGRIFUTURE** in Red Deer, February 2, 3 & 4, 2000

Contact: Mark Olson
(780) 980-4898

Agri-News Briefs

A new international marketing video for Alberta processors

Today, more and more processors are looking to expand to the international market. This can be a daunting task. The ACCESS ASIA Food Show gave Canadian processors the opportunity to meet potential customers and trade commissioners from five Asian countries. Processors learned a lot . . . and now a new video is available from Alberta Agriculture's Multi-Media Branch making the information available to all Alberta processors. ***ACCESS ASIA*** includes interview segments with processors, trade commissioners, customers, distributors and many others who attended the food show. The interviews cover a variety of topics, ranging from how to get started on expanding into Asia, adapting products to local markets, the importance of quality, health and food safety, and a whole lot more. The 30-minute tape is available from Alberta Agriculture Food and Rural Development's Communication Division for $25 plus shipping-and-handling ($2 in Canada and $6 outside of Canada) plus GST. where applicable. Call (780) 422-3951 for more information.

Intercropping of greenhouse crops

Many Alberta growers are experimenting with a system of growing younger plants along with the older plants and are finding earlier harvest and better fruit quality in cucumbers and tomatoes. Dr. Mohyuddin Mirza, greenhouse crops specialist, Alberta Agriculture, Food and Rural Development, Crop Diversification Centre North, Edmonton says this approach demands very good plant-management skills and keen insight into observing the plant growth. This method is called intercropping, simply younger seedlings being grown along with older, well established plants. The old crop is removed when it has reached its maturity and harvest starts from the new crop. The time period between the removal of the older crop and start of the harvest from the new crop is generally within a week. It is important to make sure that the young seedlings aren't stretching due to shading from the mature crop. With intercropping, growers must also be diligent to ensure that any insects and diseases do not move from the established crop to the new crop. For further information, contact Dr. Mohyuddin Mirza (780) 415-2303 or email: **<mohyuddin.mirza@agric.gov.ab.ca>**.

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Agri-News

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Lilies in Alberta

An Alberta yard full of lilies of every conceivable color and combination of colors is a truly breath-taking sight.

Some Alberta growers and plant breeders have been working with lilies for almost 40 years. Lilies have come a long way since that time when there were really only two kinds of well-known lilies, Tiger Lilies and Easter Lilies.

The popularity of lilies isn't unique to Alberta. Since the 1960's, more lilies are grown in Holland than tulips. This popularity is partly because of the ever increasing number of different varieties that have been bred and registered with the Royal Horticulture Society (RHS) and partly because lilies are a very hardy perennial.

Growing lilies is an industry that has experienced about a 30 per cent growth in the last two years in the province. Alberta has 10 large commercial lily breeders and many other smaller breeder/grower operations. All told, there are well over 70 acres devoted to growing lilies in the province.

"About 80 per cent of our customers are from Canada and 20 per cent are from the U.S. and Europe," says Marvin Joslin of Parkland Perennials, Spruce Grove, AB. "I'd say that of our yearly lily sales, 50 per cent are to commercial operations and 50 per cent to hobbyists."

"The biggest growth is in Asiatic lily varieties. Asiatics account for about 85 per cent of the lilies grown in Alberta," says Fred Tarlton, an Edmonton plant breeder who has been growing and breeding lilies for over 45 years. "The other 15 per cent is made up of Martagon and Trumpet lilies."

Tarlton has registered many varieties of lilies with the RHS, including '***Corianne***', a variety named after his grand-daughter. Some other Alberta varieties include: ***Attiwaw***, ***Amilita*** and ***Sarcee***. One of the newest registered Alberta varieties is ***Alberta Sunrise***, named by Willem Kuyt, grower assistant at Parkland Perennials.

Lilies are an alternative crop and certainly not for everyone. Growers need patience. Depending on the type of lily, it can take from five to seven years to go from seed to bloom, and it's more like seven to nine years before a plant reaches maturity. Lily growers also need space, the right soil and a decent inventory of different lily varieties and seed to get a lily growing operation running.

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"The investment in stock, if you look at it over the years, is quite incredible. We have over 400 varieties of Asiatic and over 80 varieties of Martagon lilies," adds Joslin, who has one of the largest selections of Martagons in North America. "Lilies are a long-term commitment. To start, six acres would be the least a new business would need. For a functional operation, a grower would need several areas, space for seedlings, space for different varieties, space for plantings of at least four years worth of growing."

For Albertans who just want to see some beautiful lilies blooming in their yards, the experts say that September is the best for planting. Lilies will grow nicely if planted in May also, but plants have a nicer stem if planted in September.

"Lilies like well-drained soil," continues Joslin. "A little fertilizer, in the spring is okay. Really well-rotted manure is the best, but not too heavy. Too much fertilizer will make the lilies grow spindly. Compost is good also, but again, don't over-fertilize."

For some great tips on planting and growing lilies, check out the North American Lily Society's website at **<http://www.lilies.org/>**.

To contact a local lily grower, or find out where plants are available for purchase from an Alberta grower, contact the Alberta Regional Lily Society, 3540 - 104 A Street, Edmonton, AB T6J 2N2.

For more information on the Alberta Regional Lily Society, check out their website at **<http://www.icangarden.com/Clubs/arls.htm>**.

Contact: *Marvin Joslin*
(780) 963-7307

Drying down the crop

Every year people have a host of questions about crop dessication. Most of them centre around time of application, what results can be expected and how spraying compares to swathing. The answers to many of the questions depend on what you are trying to achieve.

"Whether swathing, or truly doing a dessication job, the main objective in drying a crop is probably the same," says Ron Hockridge, crop specialist with Alberta Agriculture, Food and Rural Development, Wetaskiwin. "Drying down a crop, stops growth in green spots and limits the amount of moisture being provided to the seeds. Either job can be done after plants are physiologically mature and all that is needed is crop dry down.

"There is an advantage to leaving crops standing, as standing crops have more space for air movement that helps dry the crop out after a rain. However, an early snowfall will normally do less damage to a swathed crop. Varieties that tend to shell out, lodge or suffer from neck break are better off swathed. Equipment on hand is often the deciding factor since many farms only have a pick-up header on their combines."

For those who want to spray their crops before harvest, there are further decisions to be made. The product chosen will depend on where priorities are placed between crop dry down and fall weed control. Any of the preharvest sprays will do a decent job on annuals. For hard to control perennials, something with systemic action is a good choice. Systemics need to be applied at a later stage to avoid injury to the seed and dry down will be much slower. Some products have a combination of dessication and systemic herbicides. It is important to know the product strength to anticipate how much effect there will be from each action.

"The other factor to consider when choosing a product is the effect frost will have on their action," continues Hockridge. "For the most part, hard to kill perennials will withstand enough frost to keep growing throughout September. They are able to translocate systemic herbicides and the result wanted should be achievable. This action does need sufficient time before a very heavy frost to be effective."

Industry has been very good at responding to farmers needs. Dessication products provided a fast method to achieve similar results to swathing. With the tools available, it's a matter of knowing what job needs to be done and then choosing the right tool.

Contact: *Ron Hockridge*
(780) 361-1240

Fresh from the farm

Today's consumers are drawn to farmers markets for the wide variety of fresh produce, crafts, baking, meats, eggs and preserves that are displayed at the many stalls and tables. A farmers' market is one type of direct marketing channel where farmers can sell their agricultural products. Farmers' markets provide a perfect outlet to sell these products directly to the customer.

"Direct marketing is important for the small grower that finds it difficult to survive in a marketing system largely dominated by commercial food chains," says Janice McGregor, rural development specialist with Alberta Agriculture, Food and Rural Development, Morinville. "With direct marketing, vendors have control from the production process to the actual sale. They can bypass traditional 'middleman' costs and increase their sales profits. They can also develop a close relationship with their customers and provide products and services to meet their needs."

There are more than 120 farmers' markets throughout the province and they continue to grow in popularity with consumers and vendors alike. Trends such as increasing

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interest in organic produce, herbs, fresh cut flowers and processed foods present many opportunities for emerging processors and producers. Farmers' markets can also act as an incubator for farm, food and cottage businesses. The ability to test-market new products can be very beneficial for vendors.

"During each market session there may be more than one vendor selling similar products," adds McGregor. "Competition is a necessary part of any marketing process. Competition must exist to make the market large, diverse and more profitable. Each seller needs to assess their abilities to compete and coexist with other vendors. Success depends on the ability to establish a product or line of products in the market so that they are recognized and sought after by a steady clientele."

By using creative displays, advertising and marketing 'hustle' the demand for products can increase. When advertising or promoting, it's important to stress the advantages of the product; offer taste samples; provide different size packages and pricing options; and, encourage customers to buy extra product for canning, freezing or later use.

There is probably no single aspect of selling in a farmers' market that causes more discussion than pricing and selling strategies. Each vendor must determine their own approach to pricing and merchandising. Costs are the basis for pricing and having an idea of production costs is a must. Remember to include land, equipment, labor, supplies, depreciation and marketing cost calculations. Each producer will have slightly different production costs depending on the operation.

"Pricing a product so the return is above production and marketing costs is important," says McGregor. "Don't apologize for prices. Take a positive attitude and always stress the quality and value that comes with the product. Know the competition and realize that customers will be making product and price comparisons. Prices must be somewhere in line with other competitors' or a product may not be able to exist in the market. The right product - at the right price - at the right time are key ingredients in attracting and keeping customers."

Contact: *Janice McGregor*
(780) 939-4351

4-H camp broadens the horizons of Alberta youth

Recent People Developing People (PDP) camps gave 4-H'ers a chance to learn about the environment and themselves.

"You don't have to be old to be wise, a few hundred Alberta 4-H delegates found out this summer," says Mark Shand, PDP camp co-organizer.

The delegates, aged 13-15, were participants in the PDP camps, held July 25 to 30, August 9 to 14, and August 16-21 at the Alberta 4-H Centre near Westerose. These camps are a chance for youths to study both their internal and external environments.

"We wanted the delegates to have an increased understanding of environmental issues and of themselves, their skills and what they can take back to their communities," says Shand.

On the environmental side, delegates were divided into groups representing diverse land-use sectors, from ranchers and farmers to environmentalists and resource companies. Their task was to develop a land-use plan for their portion of an imaginary 4-H ranch.

"There was a great deal of interest in the environmental side of the program," adds Shand.

Individual development sessions also challenged the delegates. When examining issues such as peer pressure, for example, delegates had the chance to role-play different scenarios in a supportive team atmosphere. The communication session, meanwhile, had half the delegates assembling a puzzle they had never seen before, while the other half, who knew what the finished picture would look like, gave instructions. However, the delegates building the puzzle couldn't see the people giving the instructions, which forced them to examine the effectiveness and importance of strictly verbal communication.

Sponsored by Lammle's Western Wear, Agricore, Peavey Mart and Alberta 4-H Programs Trust, the PDP camps give delegates the chance to better understand the world around them, and how they fit into it. With more than 70 people at each camp, there was a lot to take in, but comments proved that it was a worthwhile experience.

"I thought it was a blast," says Nicole Reese, member of the Milk River Beef Club. "They had different sessions where you had to answer questions and give your opinion on things. It makes you think."

"It was really awesome. Meeting new people rocks," continues Megan Ciurysek, member of the Berwyn 4-H Multi Club. "We learned a lot about environmental issues and land use. We also learned about sustainability and what people are looking for when it comes to land use."

For more information on joining 4-H, call: (780) 422-4H4H (toll free through the RITE line 310-0000) or visit the 4-H web site at **<www.agric.gov.ab.ca/4h>**.

Contact: *Marguerite Stark*
(403) 948-8568

Strawberries in September?

Many of Alberta's 225 strawberry growers still have strawberries for sale. The reason strawberries are still available is because of the different types of berries grown at u-picks. June-bearing cultivars produce a single crop each year, usually lasting three to five weeks in July. Day-neutral cultivars have their highest production in August and September right up until the first killing frost.

"Industry estimates for Alberta in 1997 were 225 strawberry growers with 520 acres in production," says Kerry Engel, rural development specialist - business with Alberta Agriculture, Food & Rural Development, Westlock. "About 85 to 90 per cent of these berries are sold as u-pick with 10 to 15 per cent sold through farm gate sales or farmers' markets."

Strawberries are an extremely perishable product and should reach the consumer within two days of harvest if cooled, within one day if cooling is not available. To find locally grown strawberries check the newspaper as u-pick operations often advertise in the classified ads. The Alberta Market Gardeners Association (AMGA) listing is also a great source of information.

The 1999 edition of AMGA's ***Come to our Farms Guide*** details where Alberta berry and vegetable farms are located. These brochures are available at all Alberta Agriculture district offices; from the Publications Office, 7000 - 113 Street, Edmonton, AB T6H 5T6; or, on-line at <**http://www.incentre.net/dsi/amga**>.

Albertans can also call the AMGA toll-free at 1-800-661-AMGA (2642) to find what fruits and vegetables are in season.

"For anyone interested in starting a strawberry u-pick, the 1999 *Horticulture Congress* in Edmonton on November 11 to 13, 1999 is a great place to gather information," says Engel.

For anyone who has never been to a u-pick, the AMGA explains what to expect:

- *dress*: wear loose, comfortable clothing
- *cooler*: bring a picnic cooler to keep those berries just right until you get home
- *bugs and sun*: remember those UV rays - bring a hat and some mosquito repellent, just in case
- *call ahead*: it is a good idea to call ahead to be sure the farm has a good supply of what you want today - don't go home disappointed!
- *follow instructions*: please respect the grower's property and follow any written or verbal instructions you are given.

Contact: *Kerry Engel*
(780) 349-4465

4-H'ers to visit U.S.

Three days of looking at pigs, sheep and cows may not be everybody's idea of an enjoyable weekend, but doing just that has paid off in a big way for some Alberta 4-H members.

Sponsored by Alberta Treasury Branches and hosted by the Olds Agricultural Society, the Provincial 4-H Judging Competition, held August 6 to 8, 1999 in Olds, gave about 80 4-H'ers the chance to show their skills in judging swine, horses, cows and sheep, and 19 of the participants won trips to places as far away as Billings, Montana and Denver, Colorado for their skills in this area.

Dale Sandberg, who lives near Fort Macleod, took the top spot in five out of eight categories during the competition. He admits this showing took him by surprise. "I went there last year and was 20th overall out of 80 people. I was shooting for the top 10 this year."

Eighteen-year-old Sandberg, a member of the Fort Macleod 4-H Beef Club, added that judging at the provincial level is always challenging. "You're supposed to learn to judge at the club, district and regional levels, and the provincial competition really puts what you've learned to the test," he said. "It sharpens your skills on oral and written reasons, and all the judges there are really good at explaining what you need to look for."

Apparently Sandberg already knew what to look for, as his performance there has earned him the right to join the judging team that will represent Alberta at the Denver Western 4-H Round Up in January, 2000. "I was hoping for maybe Agribition in Regina, so it was sure a surprise when they said I'd be going to Denver. I've always wanted to go down there, so I guess this is my chance."

"We want the delegates to learn evaluative and communicative skills as well as critical thinking with this program," said Charles Schoening, 4-H project event coordinator with Alberta Agriculture, Food and Rural Development. "These are the skills that will give them an edge in their careers, especially in boardrooms and community meetings. This program teaches them these things in a very effective manner."

For more information on joining 4-H, please call (780) 422-4H4H (toll free through the RITE line at 310-0000) or visit the 4-H web page at <**www.agric.gov.ab.ca/4h**>.

Contact: *Henry Wiegman*
Provincial 4-H agriculture specialist
(780) 427-4532

New on-line services for special crops producers

"Three new services are now available on Alberta Agriculture, Food and Rural Development's website," says Nabi Chaudhary, senior economic analyst, crops, with Alberta Agriculture, Food and Rural Development, Edmonton. "The Special Crops Product Team invites clients to log-on to the site and check out the new features."

Web Board – allows buyers and sellers to communicate with each other regarding the supply and demand of special crops and their products. Users of the network can post their comments or ask questions and respond to questions by other users. Department staff will monitor the board to ensure that all questions are answered. This interaction will help to bring the various players in the industry together to discuss marketing, current issues and concerns.

Buyers and Sellers Lists – lists of special crops buyers and sellers have been created to facilitate marketing of special crops and their products. Clients are encouraged to add their names to this site.

Buy or Sell Special Crops – a site that allows clients to request crops that they wish to buy or list crops for sale. It offers a unique opportunity to discover what is available and what the demand is in the marketplace.

These services can be located by first going to the Alberta Agriculture site at: <**http://www.agric.gov.ab.ca**> then click on **crops/plants** and then select **special crops**.

Contact:	*Nabi Chaudhary*	*Wayne Goruk*
	(780) 422-4054	*(780) 427-3122*

Agri-News Briefs

1999 Horse Improvement program

Alberta Arabian, Morgan, Appaloosa, Welsh (sections a & b) and Miniature horse breeders in cooperation with Alberta Agriculture, Food and Rural Development's horse industry section are holding the 1999 Alberta Horse Improvement Program on September 18 and 19, 1999 at the Westerner Park in Red Deer. Conformation will be evaluated by three evaluators separately and an average score determined for Arabian, Part-bred Arabian, Morgan, Appaloosa and Welsh entries. Miniature horses will be judged by consensus. The final score in the performance classes will be based on a combination of performance (75 %) and conformation (25 %). Horses achieving an evaluation score of 75 to 84 will be designated as a Classic Alberta Bred. Horses achieving an evaluation score of 85 or more will be designated as a Premium Alberta Bred. Horses can achieve Supreme Alberta Bred recognition by being classified as a Classic or Premium horse as a yearling and/or a two-year-old plus a Premium classification in performance. All horses entered must have been foaled from a mare owned by an Alberta resident at the time of foaling. Classes commence at 6:30 p.m. on September 18 and begin at 8:00 a.m. on September 19. A Paint Horse Show precedes the Saturday evening evaluations. Spectators are admitted free. For further information, contact Les Burwash, head of equine program with Alberta Agriculture, (403) 948-8538 in Airdrie.

Commercial sheep industry

A new Ag-Ventures factsheet, ***Commercial Sheep Industry*** is now available. The factsheet introduces sheep enterprises as potential business opportunities and is an overview of the key management issues in developing and running a sheep operation in Alberta. Information on marketing basics, industry highlights, production requirements and financial considerations are all included in the factsheet. ***Commercial Sheep Industry***, Agdex # 430/830-1, is available at all Alberta Agriculture, Food and Rural Development district offices or through the Publications Office, 7000 - 113 Street, Edmonton, AB T6H 5T6.

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Agri-News

September 20, 1999

Haying or grazing this fall?

Cool weather delayed haying on many fields and reduced second-cut hay yields. Producers faced with this type of situation may want to consider grazing those fields instead of harvesting. Typically, the cost of harvesting activities is about half the value of the finished feed and the cost goes up as yield drops.

"Hay harvesting has a fixed cost component to it," says Lorne Erickson, forage specialist with Alberta Agriculture, Food and Rural Development, Rimbey. "No matter how small the hay crop, it takes time and machinery to harvest and bail. Cows, on the other hand, harvest for next to nothing, the only costs being perhaps some additional fencing. Fencing costs will likely be considerably less than the $20 to $25 per acre it costs to harvest."

There are some factors to be aware of when considering grazing a hay field. Cattle can bloat while grazing alfalfa, and the risk is higher immediately following a frost. Bloat risk is reduced if there is some grass mixed in with the alfalfa.

"A killing frost will cause alfalfa leaves to wither and fall off, reducing the grazing quality and tonnage," says Erickson. "Cutting and allowing the cattle to graze the windrows can save some feed, but the added grazing may not justify the cost. If the crop is quite heavy, it will insulate itself against frost damage and provide good grazing into the late fall."

Frost is not the only concern when grazing alfalfa. Severe grazing can cause damage to the crowns of alfalfa plants and lower hay yields the following year. These problems can be avoided by not letting cows graze down to the ground and by not confining them to a small area, especially if the ground is wet. Controlled grazing using electric fences increases the number of grazing days on a field. Control is more important when there is snow cover.

"Alfalfa fields should not be cut in the four-week period before the first killing frost and the same principle holds true when grazing," adds Erickson. "Alfalfa needs some time to recharge its root reserves after cutting before winter sets in or else it should not be cut until after growth has stopped for the year. Most of the time, fall grazing of alfalfa can begin in late September and continue through October."

For producers who have more acres than they need, check with neighbors; they may be interested in buying some fall pasture. It's also a good idea to save a grass pasture for spring use and graze the alfalfa this fall, as there won't be many leaves left on the alfalfa by spring.

Contact: Lorne Erickson (780) 843-2201

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Alberta livestock inventory estimates

Cattle, hog and sheep inventory estimates (at July 1) for Alberta and other Canadian provinces were released on August 25th by Statistics Canada. The Alberta estimates were prepared jointly by Statistics Canada and the statistics and data development unit of the Markets and Economic Division, Alberta Agriculture, Food and Rural Development.

"All cattle and calves on farms in Alberta as of July 1, 1999, totalled 5.76 million head, which is 0.9 per cent lower than the revised total of 5.81 million, a year ago," says Reynold Jaipaul, livestock statistician with Alberta Agriculture, Edmonton. "For the fourth consecutive year, the number of beef cows in the province was down. Estimated at 1.9 million head, this total was 0.8 per cent lower than in 1998 and 2.6 per cent lower than in 1997."

Beef heifers for replacement showed a trend similar to beef cows, shrinking for the fourth consecutive year as well. The estimated number of animals was 318,000 head, 0.6 per cent lower than in 1998 and 14.1 per cent less than in 1997. The cattle cycle is still in a contraction phase, as shown by he beef breeding herd (comprising cows and heifers) being the smallest since 1995.

"While numbers are down, Alberta continues to lead the country in cattle and calf inventories (5.76 million head), followed by Saskatchewan (2.78 million head) and Ontario (2.11 million head)," says Jaipaul. "Consistent with Alberta, the national herd is in a contraction phase. The estimated total number of cattle and calves at July 1, 1999, was 14.51 million, down 1.6 per cent from July of 1998 and 3.9 per cent lower than the peak in 1996."

Alberta currently accounts for more than one half (53.7 per cent) of the total estimated western Canadian herd (10.73 million head) and 39.7 per cent of the national total of 14.51 million.

"The estimated number of pigs on farms in Alberta at July 1, 1999, was 1.81 million head, down 3.9 per cent from the revised total of 1.88 million a year ago," continues Jaipaul. "A sizeable drop in the number of market hogs was chiefly responsible for the overall decline in the pig inventory."

There were 69,800 fewer market hogs in 1999, with the estimated total at 1.62 million head, compared to 1.69 million head in 1998, a decline of roughly 4 per cent. Weaker slaughter hog prices coupled with fewer days to market a hog were the primary reasons for the decline.

Total breeding stock (comprising boars, sows and bred gilts) fell 1.7 per cent, to 187,800 head, from 191,000 in 1998. The decline in breeding stock continues to be the result of eroding profit margins for producers, brought on by weaker hog cash prices. Downsizing has been occurring to some degree since the beginning of the year, following the virtual collapse of hog prices in the last quarter of 1998 and the less than average break-even prices for much of 1999. Prices rebounded to seasonal highs in mid-August, before trending lower.

"While the breeding herd has been declining, Alberta hog operations are becoming increasingly more efficient," says Jaipaul. "The average operation has increased in size, producing an increasing number of hogs per sow, while at the same time becoming more feed efficient."

Compared to other Canadian provinces, Alberta currently ranks fourth in pig inventories (1.81 million head), behind Quebec (3.85 million head), Ontario (3.38 million head) and Manitoba (1.92 million head). Alberta currently accounts for 37.8 per cent of the total estimated western Canadian herd (4.79 million head) and 14.6 per cent of the national total of 12.39 million pigs.

"After three years of steady decline, Alberta's sheep and lamb inventory was up," says Jaipaul. "Estimates as of July 1,1999, peg the size of provincial flock at 217,300 head, 1.1 per cent larger than in 1998. The growth in the total inventory was attributed primarily to an increase in the number of market lambs. Estimated at 81,000, this total was 3.6 per cent higher than in 1998. Rising market lamb numbers suggest that producers are no longer aggressively selling off their stock, given that slaughter lamb prices have tapered off from record highs."

When compared to other provinces, Alberta has the second largest sheep and lamb inventory (217,300 head), behind Ontario whose flock has been estimated at 255,300 head.

Alberta currently accounts for more than one-half (51.7 per cent) of the total estimated western Canadian flock (420,700 head) and 24.5 per cent of the national total of 885,400.

Contact: Reynold Jaipaul
(780) 427-5376

Plant the Seed of Farm Safety entries due

Every year Alberta children are killed or injured on local farms. Earlier this year, Alberta Agriculture, Food and Rural Development helped launch a campaign to get school children to share their farm safety ideas.

"The ***Plant the Seed of Farm Safety*** campaign is just one way to get Alberta school children thinking about how important farm safety is," says Solomon Kyeremanteng, manager of Alberta Agriculture's Farm Safety Program. "The campaign was designed to combat incidences of farm injury and death and was launched at Sunnyside School near Lethbridge in March 1999."

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Alberta Agriculture partnered with John Deere Limited and Hole's Greenhouse & Gardens of St. Albert to launch the program. Rural children in grades one to four received a package of seeds that when planted, would grow to be bright yellow sunflowers.

"The idea was for the children to plant the seeds, care for them and watch them grow, then write and tell us at the Farm Safety Program office what they do on their farm to make it a safe place," adds Kyeremanteng. "Those children are now back in school, and it's time for them to send in their safety messages and experiences to Alberta Agriculture's farm safety program in Edmonton."

There are many prizes to be won. The two grand prizes consist of a family trip for four to Calgary or Edmonton to see an NHL hockey game; accommodation is included. Some 50 knapsacks with cooler bags and 100 insulated lunch bags will also be awarded.

"Parents are asked to encourage their children to participate. Farm safety is very much a family priority on Alberta farms," says Kyeremanteng. "We ask that those students who took advantage of the chance to grow the sunflower seeds from Holes greenhouses put their farm safety experiences down on paper. Tell us how they are making their farm a safer place to grow."

Entries must be received on or before September 30, 1999, and should be sent to the address that appears on the information package received with the seeds – The Farm Safety Program, Alberta Agriculture, Food and Rural Development, 7000 - 113 street, Edmonton, AB T6H 5T6.

Contact: Solomon Kyeremanteng
(780) 427-4227

Aster Yellows

Late summer is the time when many plant diseases show their best symptoms. A good example of this phenomenon is seen with the disease aster yellows, which affects a wide variety of garden plants and field crops in Alberta and elsewhere on the Prairies. This year, the disease has been reported on canola, echinacea, carrots, garden flowers, herbs, alfalfa and potatoes, to mention a few.

"Aster yellows is caused by a microscopic pathogen called a phytoplasma, which is intermediate between bacteria and viruses in its characteristics," says Dr. Ron Howard, leader of the horticulture unit at Alberta Agriculture, Food and Rural Development's Crop Diversification Centre South in Brooks. "The aster yellows phytoplasma occurs in several different strains and is spread from plant to plant by certain species of leafhoppers. Aster yellows has a broad host range that includes over 200 plant species in more than 40 families."

Aster yellows has a range of characteristic symptoms that include vein clearing, yellowing or reddening of leaves, stunting, shortened internodes, deformed or lopsided flower heads, poor root development and shoot proliferation. As the disease advances, affected plants may die. In addition to affecting the visual appearance of a plant, aster yellows can reduce the yield, quality and viability of seeds and other plant products.

"Aster yellows is difficult to manage, so an integrated approach is required," continues Howard. "This approach includes early monitoring and detection of both leafhoppers and the disease, eradication of infected plants and control of leafhoppers. Growers should inspect crops and the surrounding areas for leafhoppers and infected plants several times during the growing season. Diseased plants should be pulled and destroyed where practical. Weeds in and around fields or gardens should be controlled as they may harbor the phytoplasma and leafhoppers. Susceptible annual crops should be planted away from perennial crops if possible. Registered insecticide sprays can be used against leafhoppers on some plant species."

Alberta scientists are at the forefront of research on aster yellows and its management. Collaborative projects with researchers in Saskatchewan and Montana, where the disease is also a serious problem, may provide important answers to questions about how aster yellows seems to survive and spread so successfully under prairie conditions.

Contact: Dr. Ron Howard
(403) 362-1328

Fall seeding canola

Interest continues to be high in fall seeding canola. Producers have been looking for options to maximize the efficiency of their machinery and time, as they try to cover more and more acres. Fall seeding of canola has been seen as one way to accomplish this goal.

"This year, over 100 producers across the Prairies tried comparing 'coated fall' to 'uncoated fall' seeded canola. Several producers also compared these to 'uncoated spring' seeded canola. These comparisons are helping identify and minimize the risks associated with the process, which in turn is helping the fall seeding concept move from the experimental to the commercial stage," says Jay Byer, crops specialist with Alberta, Agriculture, Food and Rural Development, Bonnyville.

"Maintaining stubble and proper seed placement are two practices that have been found to be critical for ideal fall seeded canola plant establishment. This year, a significant number of acres of mid- to late-spring seeded Argentine canola are at risk of frost because of a less than ideal growing

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season. Fall seeded canola is maturing this year before the risk of frost is significant. Producers in traditional Polish growing areas are also getting tired of accepting lower yields and are looking to get Argentine canola to mature before expected first frost dates. Most fall seeded material matured before the middle to end of August this year."

Most of these concerns are very valid reasons to consider fall seeding, and research is being conducted to confirm all the agronomics behind fall seeding. Farmers who have fall seeded are also being surveyed to find the reasons behind their fall seeding successes and failures. This information will help maximize the future chances of getting a good fall seeded crop off. Surveys, however, are still only the best recollection of what producers did. They are not necessarily statistically valid information. Because of this concern, producers are advised to try a small fall seeded plot first, or try a few plots that differ in some way so that they can see what works best on their land. The information from these trials continues to be requested from producers by Alberta Agriculture's oilseed crops specialists.

To date, what is known so far on fall seeding is:

Site selection is important

Seed that sits under water for three weeks in the spring does not germinate well. For this reason, some fields may not be the best choice. Fall seeded canola should be seeded on well-drained, up-slope land rather than on drained sloughs. In areas prone to Chinooks, it's important to consider areas that don't lose their snow cover as readily as others. On such sites, consider direct seeding the fields, and hopefully, the stubble will help maintain the snowpack and minimize the effect of the Chinook, reducing any untimely germination.

Know your weed population

The field selected for fall seeding should be as clean as possible – the biggest cause of fall seeding failure in the past has been early weed competition from winter annuals and perennials. Generally, a herbicide tolerant variety is recommended for fall seeding to minimize any weed competition 'wrecks'. If producers are confident that weeds won't be a problem or that they can manage weeds without a herbicide tolerant variety, other varieties can be used. Be aware that with alternative date seedings, weeds may not all be at a sprayable stage when the crop is in the right leaf stage to have herbicides applied. In those cases, herbicide tolerant varieties allow the greatest flexibility in weed control.

Seed carefully

Seed placement should be shallow, no more than one-half inch (1/2") deep to minimize the distance the slow growing fall seeded plant has to go through in the spring. Ensure good seed-to-soil contact but do not over-pack. Some concern exists that significant packing occurs naturally over the winter anyway, so over-packing in the fall may result in spring crusting, with emergence accompanying problems. Also, consider seeding equipment carefully. If the seeder being used leaves deep ridges while seeding, those ridges can slump over in the winter, increasing the net depth of the seed, potentially causing early spring emergence problems.

Broadcast seeding is generally not recommended. Regardless of the seeding method used, it may be advantageous to increase the nitrogen in the soil slightly to make up for any off-season denitrification.

Fall seed as late as possible

Timing is critical for fall seeded canola. Ensuring there is no germination in the fall will give the best stand in the spring. Ensuring dormancy in the fall means one of two things: wait until the soil is really cold and will stay that way, or wait until the first permanent snowfall. This is really tricky, but weather data received to date indicates that it is not until mid-to late-October that the soil temperature stays below five degrees Celsius at mid-day. Therefore, it is not generally recommended to fall seed until the last week of October, unless a major snowfall is imminent. Generally, just try and get it in as late as possible. Another alternative is to consider early spring seeding. Spring seeding, as early as possible, seems to be as advantageous as fall seeding. Spring seeded canola has equal maturity advancement, appears to withstand light frosts and has equal or better yield as a fall seeded crop and less risk of fall germination.

To summarize, producers considering fall seeding of canola this year, be sure to get the seed in as late as possible, seed as shallow as possible in the best possible location and give it the greatest possible chance of success by having a good weed control plan.

Contact: Jay Byer
(780) 826-3388

Agri-News Briefs

Algae control in ponds

A new factsheet has been produced by Alberta Agriculture, Food and Rural Development, ***Algae Control in Ponds*** (Agdex 485/716-2). The factsheet was produced especially for fish farm situations, but information on algae control certainly applies to farm dugouts used for livestock watering also. Prevention is always easier than dealing with a serious algae growth problem, and the factsheet includes suggestions on how to prevent algae from blooming. Several alternative control methods are listed and examples are given of treatments options farmers may want to be aware of. Copies of the factsheet are free and can be picked up at any Alberta Agriculture district office or at the Publications Office, 7000 - 113 Street, Edmonton, AB T6H 5T6.

FWC '99

The 22nd annual Peace Region Farm Women's Conference is on November 18 and 19, 1999. The conference is being held in Grande Prairie at the Grande Prairie Inn. Brochures and registration forms are available at Alberta Agriculture, Food and Rural Development offices in the Peace region or by calling (780) 864-3597 in Spirit River. Government numbers are toll free in Alberta by dialing 310-0000 first.

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Agri-News

September 27, 1999

Cooler 1999 growing season

It may not sound like much, but a half a degree below average can make quite a difference over a five month growing season. The April to August average growing season temperature was 11.5 degrees Celsius, which is 0.5 degrees below the average for the 1961 to 1990 period.

"Growing degree days above 5 degrees Celsius for April 1 to September 5 were 122 units below normal," says Peter Dzikowski, agricultural weather resource specialist with Alberta Agriculture, Food and Rural Development, Edmonton. "That's a growing season equivalent to about one week shorter than normal. The contrast to last year is even greater, since 1998 had about 260 growing degree days more than normal which is equivalent to a growing season about two weeks longer than normal. Degree days are a measure of total energy available for crop growth."

Over all, the province averaged 290.1 mm of precipitation during the 1999 growing season, or 107 per cent of normal.

"The growing season began with above normal precipitation in southern and central regions after a dry winter. The April rains helped recharge dry soils and even delayed seeding in southern and central regions," says Dzikowski. "The Peace region and parts of the northeast and northwest regions were dry, reporting only half of normal precipitation, a pattern that continued throughout the remainder of the growing season."

May brought cooler temperatures and near normal precipitation. The provincial average temperature of 8.7 degrees C was 1.6 degrees below normal. The provincial average precipitation was near normal. The central region reported the greatest precipitation departure, receiving 56.5 mm of rain, about 24 per cent above normal.

"June was also cool with below normal precipitation, slowing crop development in most regions," continues Dzikowski. "Fortunately, July precipitation totals were above normal, bringing much needed moisture to most of the province, the exceptions being the Peace region and parts of the northeast region, which reported below normal precipitation."

July's provincial average temperature of 14.7 degrees C was 2.1 degrees below normal. All agricultural regions reported below normal temperatures. The central region had the greatest temperature departure, with an average monthly temperature of 14.0 degrees, or 2.9 degrees below normal. Growing degree-days at the end of July were below normal in most regions, indicating slower crop development.

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Agri-News **Publishing Branch, Tel: (780) 427-2121 Fax: (780) 427-2861**

Internet site: www.agric.gov.ab.ca/agrinews Editor e-mail: agrinews@agric.gov.ab.ca

Alberta
AGRICULTURE, FOOD AND RURAL DEVELOPMENT

July's provincial average precipitation of 89.5 mm was 131 per cent of the 1961 to 1990 normal of 68.5 mm. The central region reported 177.2 mm of precipitation, 242 per cent of normal. The southern region also reported above normal precipitation. Near normal precipitation was reported in the northeast and northwest regions while below normal precipitation was reported in the Peace region.

Over 80 mm of precipitation fell in the Sundre and Rocky Mountain House area on July 13 and 14. Some of the precipitation from this storm fell as snow in the mountains and foothills. Up to 5 cm of snow was reported in the Elnora/Huxley area on July 15.

"Warm weather returned to Alberta briefly in August, helping to advance crop development and providing good harvest weather," adds Dzikowski. "The provincial average temperature of 16.6 degrees C was 0.8 degrees above the 1961 to 1990 normal of 15.8 degree C. In most regions, warm August temperatures helped speed crop development after a summer of below normal temperatures."

The southern, northeast, northwest and Peace regions all reported above normal temperatures in August. The Peace and northwest regions had the greatest temperature departures, with average monthly temperatures of 16.2 degrees, or 1.6 degrees above normal. The central region reported near normal monthly temperature of 15.9 degrees.

The provincial average August precipitation of 49.7 mm was 91 per cent of the 1961 to 1990 normal of 54.4 mm. Above normal August precipitation was reported in the southern region. All other regions reported below normal precipitation. The Peace region was the driest region in the province, reporting 33.4 mm of precipitation, or 57 per cent of normal.

Milk River reported the greatest precipitation departure, with 59.6 mm of precipitation, or 186 per cent of normal. Elk Island Park reported the greatest temperature departure, 2.3 degrees above normal.

"Overall, the 1999 growing season will likely be remembered as cool and wet in southern and central Alberta, and dry with below normal precipitation in northern Alberta," says Dzikowski.

Provincial averages are based on Environment Canada data recorded at 56 locations across Alberta.

For more information, visit Alberta Agriculture's internet webpage at <http://www.agric.gov.ab.ca> and then click on ***Markets, News and Weather***.

Contact: *Peter Dzikowski*
(780) 427-3594

Funding available for national rural health and farm safety projects

The Canadian Agriculture Safety Program (CASP II) has funding available for rural health and farm safety projects. The Alberta CASP II lead agency, Women of Unifarm are requesting that all interested persons and non-profit organizations send in their applications before the September 30, 1999 application deadline. Applications should be sent directly to the CASP Administration Agency, 420 University Avenue, Charlottetown, P.E.I. C1A 7Z5, or fax (902) 368-7204.

"The Canadian Coalition for Agricultural Safety and Rural Health (CCASRH), through CASP II have introduced a new program category, Emerging Issues," says Women of Unifarm, Alberta-CASP II coordinator, Shirley Dyck, Edmonton. "The category is specifically designed for applicants who wish to develop materials and promote activities on a national scale. The proposed projects must be designed to increase the farm sector's awareness of new agricultural health and safety issues."

Applicants must have partners from at least three provinces, or be identified and requested by the CCASRH Board of Directors.

"Projects will be funded for 50 per cent of the approved budget," adds Dyck. "To qualify for funding under this program category, projects must be completed by March 31, 2000."

Applicants can get a copy of the CASP II application form through e-mail at <**casp@auracom.com**> or by calling the CASP administrative agency at (902) 368-3118, Charlottetown, P.E.I. All applications must be received on or before September 30, 1999.

Contact: *Shirley Dyck*
(780) 452-7605
e-mail: ***sdyck@compusmart.ab.ca***

Perennial ryegrass seed production in southern Alberta

Perennial ryegrass is a new crop for southern Alberta and one that comes with some risks for producers who may want to grow it for seed production. Worldwide it is one of the most popular pasture grasses because of its high palatability and aggressive growth. As well, there are literally hundreds of varieties that have been developed for the turf grass industry because of its quick establishment and good color characteristics.

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"One of the drawbacks to using perennial ryegrass as a crop, especially on the prairies, is its lack of winter hardiness," says Henry Najda, grass seed agronomist at Alberta Agriculture, Food and Rural Development's Crop Diversification Centre South (CDCS), Brooks. "Another problem is the presence of endophytes in the straw of turf-type perennial ryegrass. Endophytes are fungi that are beneficial to the ryegrass but, if levels are too high in straw fed to livestock, animals can get ryegrass staggers in which they suffer from tremors and falling down."

Researchers at the CDCS became interested in ryegrass as a possible crop for use in rotations. The grass stand, not having good winter hardiness, has a slim chance of making it to the following year, especially if the stand is clear seeded in the spring.

"In general, the use of a companion crop is not a recommended practice in grass seed production and the establishment year provides no economic return to the producer. However, there is evidence from Europe that companion cropping a cereal with perennial ryegrass seemed to help winter survival and still provided an economic return on the grass seed," says Najda. "CDCS set up an experiment consisting of different treatments – perennial ryegrass clear seeded in the spring, perennial ryegrass seeded with a barley companion crop to be taken off either for silage or grain and a midsummer seeding of perennial ryegrass into no-till and worked barley stubble."The irrigated experiments were conducted and irrigated at two sites – Brooks and Bow Island. Findings were that the highest yields at both locations were from the barley companion crop taken either for silage or grain averaging about 1500 lb/ac at Bow Island and about 1100 lb/ac at Brooks, with varying lower yields for the other treatments. It should be mentioned that these tests were only for one grass seed crop in this species and that's why the use of a companion crop fit nicely. This type of management provides economic return to the producer each year."

It is speculated that the companion crop provided enough competition to the perennial ryegrass that it went into winter in a physiological stage that allows it to survive winter better than a clear seeded stand. Also, stubble from the grain crop may have trapped snow that could help the winter survival of the grass seedlings. Another two years of testing are planned before making any final conclusions on these various management practices.

"There is a lot of potential to using perennial ryegrass for seed production as a cropping option in southern Alberta," adds Najda. " One reason to look at the use of barley as a companion crop is that in areas close to feedlots, the barley could be used to meet their silage requirements. There is also some research from the Netherlands where there was a 10 to 15 per cent increase in potato production following a ryegrass crop. This could have some implications in southern Alberta with the increase in potato production and the need to fit some higher value crops in the rotations needed to help maintain a viable potato industry.

Currently, perennial ryegrass seed production in southern Alberta is around 2000 acres with yields over the last three years averaging between 850 to 1400 lb/ac with producers using companion crops. Contract prices have been in the $0.45 to $0.55 per pound range.

Contact Henry Najda
(403) 362-1346

Consultations begin on proposed Sustainable Livestock Production Act and Regulatory Framework

The third round of public consultations on the regulatory framework for Alberta's intensive livestock industry is now underway. Albertans are being asked to comment on the proposed *Sustainable Livestock Production Act* and its regulations.

Albertans were last consulted on this issue in Spring 1999. During those consultations, the Livestock Regulations Stakeholder Advisory Group (LRSAG), responsible for developing the framework and managing the consultations, heard that while the basic framework was acceptable, some changes were needed. Albertans also said they wanted to see a more detailed package of the proposed act, regulations and standards.

"Most of the concerns we received centered around livestock threshold numbers, public involvement and enforcement," said Barry Mehr, LRSAG co-chair. "We also heard concerns about how existing livestock operations would be regulated. All of these issues have been addressed in this updated framework package."

All interested Albertans, particularly the groups and individuals who have participated in the development process to date, are encouraged to obtain a copy of the framework package and questionnaire. Copies are available on the Alberta Agriculture, Food and Rural Development internet website at <**http:// www.agric.gov.ab.ca/ilo**.>. It is also available at local Alberta Agriculture district offices, or by calling (780) 422-2070. You can save long distance calling charges by dialing 310-0000, then the office number.

Deadline for comments on the proposed framework is November 1, 1999.

The Livestock Regulations Stakeholder Advisory Group (LRSAG) will also hold public meetings throughout the province in October. A schedule for the meetings will be released in the middle of September. A list of the meetings will also be published on the website listed above.

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Input gathered from this third round of public consultations will be used to further refine the existing framework package.

"Once we hear what Albertans have to say about this package, we plan to present our findings to the Minister of Agriculture, Food and Rural Development," said LRSAG co-chair Aaron Falkenberg. "We hope to have the package completed by next spring."

Contact: *Aaron Falkenberg, Co-Chair*
Livestock Regulations Stakeholder
Advisory Group
(780) 922-5328
Maureen Barnes
Alberta Agriculture, Food and
Rural Development
(780) 427-4369

Building community support for your project

There are several questions that must be answered before launching a project or initiative in a community: How will the community react to the project? What can be done to bring the community on side?

"A new project generally represents some form of a change to a community," says Carmen Andrew, rural development specialist-organizations with Alberta Agriculture, Food and Rural Development, Stettler. "Open public participation is one communication strategy that has proven to be successful in winning the support of communities for new projects or developments."

Various communication strategies are discussed in a new factsheet, ***Building Community Support for Your Project***. The factsheet includes information on several communication tools that can be used, such as: informal consultation, use of media, open houses, a factsheet with a tear off response, reference centres and public forums. Some communication strategies may be more suitable than others for reaching different groups of people.

"Know your community and begin consulting with them right from the start," advises Betty Birch, Alberta Agriculture rural development specialist-organizations, Stettler. "This is critical when building trust, understanding and support for the project. Any communication about the project must be open, honest and timely. Consider what information to share, who to communicate to, and when. Inviting the public to express its views and concerns about the project can help enhance community support and ultimately the success of the project."

Building community support for a project is an ongoing process. It requires a significant investment of time, perseverance and diligence. Effective communication is paramount. Be sure to listen to and take advice from the community. Let them know where their input has made a difference. Public participation leads to successful and sustainable projects in your community.

Building Community Support for Your Project is available from Alberta Agriculture district offices, the Publications Office, 7000 - 113 Street, Edmonton, AB T6H 5T6 and on the Alberta Agriculture internet site at **<http://www.agric.gov.ab.ca/navigation/ruraldev/leadership/index.html>**.

For more information about the public participation process, contact a Rural Development Specialist – Organizations, with Alberta Agriculture, Food and Rural Development.

Contact: *Carmen Andrew* *(403) 742-7500*
Betty Birch *(403) 742-7500*

Pulse Crop Advance

Beginning October 1, 1999, Alberta Pulse Growers Commission (APGC) will offer cash advances on stored peas, beans, lentils and chickpeas. The Pulse Crop Advance program will help farm cash flow at harvest and will allow farmers to store their crop and sell it later in the crop year.

"The Pulse Crop Advance works in the same way as the Wheat Board and Canola Advance," says Janette McDonald, general manager of the APGC, Leduc. "The amount of the advance is based on 50 per cent of the expected farm gate price of the crop in storage, with the maximum advance being $250,000."

Under this new program, the first $50,000 loan, cumulative for all crops, is interest-free and is available at a cost of $250 for administration plus a two per cent deposit. For loans of $50,001 to $250,000, the interest rate is prime minus 1/4 per cent and the administration cost is $300 per loan. The federal government guarantees 98 per cent of the loan. Credit check and bin checks will be conducted in accordance with the Federal Government Administration Guidelines.

Crop prices for the advance payments program are:

• Peas	$1.80/bu
• Navy beans	$0.12/lb
• Pinto beans	$0.115/lb
• Other colored beans	$0.13/lb
• Lentils	$0.0825/lb
• Fababeans	$0.045/lb
• Desi Chickpeas	$0.07/lb
• Kabuli Chickpeas	$0.12/lb

"To reduce administration costs, APGC has contracted the Manitoba Corn Growers Association to administer the program for Alberta's pulse growers," adds McDonald. "The Manitoba

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Corn Growers have experience with this program and will administer advances for pulse crops in Alberta, Saskatchewan and Manitoba."

Application forms are available by calling 1-877-598-5685 or checking out the APGC website at <**www.pulse.ab.ca**>

Contact: Janette McDonald
(780) 986-9398

Agri-News Briefs

Poinsettia Open Houses

Alberta Greenhouse Growers Association (AGGA) and staff from Alberta Agriculture, Food and Rural Development and Alberta Research Council are hosting two open houses for Poinsettia growers. The first open house is being held on October 6, 1999 from 1:00 to 4:00 p.m at Salisbury Greenhouses, in Sherwood Park. The second open house is being held at Balzac Garden Centre and Greenhouses, Balzac. The program includes presentations on the production of high quality poinsettias and managing insects. A tour of the greenhouses follows the presentations. As space is limited, pre-registration is required. The open houses are free for AGGA members and $10.00 for non-members. The fee is payable at the door. For further information, contact Dr. Mohyuddin Mirza at (780) 415-2303, fax (780) 422-6096 or email <mohyuddin.mirza@agric.gov.ab.ca>.

Triticale or barley?

The Lacombe Research Station has tested fields in high yield environments and the results show a 20 to 30 per cent silage yield increase with triticale over barley. Triticale should be cut earlier than barley. For barley, the best time to cut for silage, to balance yield and quality, is at the soft-dough stage. With triticale, it is generally agreed that 10 days after flowering is a good time to cut and it's better to cut too early rather than too late. Another benefit of triticale is that winter triticale overwinters most years better than winter wheat. Researchers also recommend winter/spring triticale blends seeded together in the spring in fields where silaging will be followed by grazing. Keep in mind that winter triticale is usually ready three weeks before spring triticale. For further information, contact Gordon Frank, crop specialist with Alberta Agriculture, Food and Rural Development, Brooks, (403) 362-1212.

Manage straw at harvest for direct seed next spring

There are many benefits to direct seeding, such as: more organic matter, more soil organisms, better soil tilth, less soil compaction, less soil erosion, better water infiltration, higher soil moisture, better surface water quality, greater storage of carbon in the soil, less labor, less machinery wear, fuel savings, less air pollution, considerable time savings, greater profitability and more wildlife. If considering direct seeding next spring, however, it is imperative to manage straw at harvest. The only exceptions are when dealing with low residue crops, such as peas, canola and alfalfa. To help manage straw:

- buy an attachment that puts the chaff on top of the straw behind the combine and bale as soon as possible;
- buy a chaff saver. Leave chaff piles for cows to graze or remove them for later feeding;
- buy a chaff spreader and ensure good straw spread. Keep chopper knives sharp. Don't combine tough straw;
- direct combine and cut as high as possible. A stripper header could also be considered;
- if not unloading on the go, back the combine up to avoid leaving a straw and chaff pile when stopped. Unloading to a truck at the edge of the field may be better to minimize compaction.

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Agri-News

October 4, 1999

Benchmark Database for Alberta's fruit industry

Saskatoons, black currants, sour cherries, sea buckthorn, raspberries, chokecherries ... the bush fruit industry in Alberta has grown considerably over the last 10 years. There has even been new types of fruit grown and marketed in Alberta in that time period.

"Currently, there's no information or data on the size of the bush fruit industry, types of fruit grown or marketing techniques used by the industry," says Sharon Faye, horticulture resource officer with Alberta Agriculture, Food and Rural Development, Edmonton. "The Fruit Growers Society of Alberta (FGSA) together with Alberta Agriculture are developing a benchmark database for the provincial fruit industry to help assess its status and needs. As an industry grows, its marketing outlets change. Therefore, all growers' input and cooperation is important, even if they aren't FGSA members. These growers include U-pick, Farmers' Markets and commercial berry operations."

A questionnaire is being developed to obtain data from bush fruit growers across the province. The purpose of the survey is to develop a profile of the growth areas, scale of the industry (acreage; value; marketing methods; building and equipment investment; and, trends and opportunities). It will help determine the competitiveness of the Alberta industry and other production areas. The survey will help in identifying technical and marketing skills required by the industry to meet recognized growth opportunities.

"We expect that the project will assist in adding value to local produce, increasing producer returns," adds Faye. "Increased demand, returns and productivity are reflected in rural development and growth."

All information will be kept confidential, including names and addresses. The questionnaire will be sent to growers around mid-October with a self-addressed, stamped envelope to return the completed response. All fruit growers interested in participating are encouraged to contact Faye at (780) 422-5326 to be included on the mailing list.

"With producer contributions, we look forward to developing an information package that will be useful to the bush fruit industry in Alberta and assist that industry's growth,"

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Alberta
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concludes Faye. "Producers who wish to hear about other research or evaluation products, or about further developments that affect the industry, have the option of adding their name to a list being compiled from the questionnaires received."

Contact: *Sharon Faye* *(780) 422-5326* *Nabi Chaudhary* *(780) 422-4054*

Maintaining quality in greenhouse crops over winter

After September 23, days are shorter and light intensities drop. At this time of year, with less than 12 hours of natural light each day, the photosynthesis rate goes down and fruit size is affected.

"Maintaining fruit quality in tomatoes from September and through the winter should be a priority along with disease and insect control," says Dr. Mohyuddin Mirza, greenhouse crops specialist at Alberta Agriculture, Food and Rural Development's Crop Diversification Centre North (CDCN), Edmonton. "Keeping plant and fruit quality high reduces the chance of disease and insect carry-over to the next crop year."

Irrigation should be adjusted so that there is more oxygen in the root zone. Start watering later in the morning and watch the over-drain to adjust watering. Stop watering earlier in the afternoon than is normal when irrigating in summer months, but keep the irrigation at a minimum of 120 to 150 millilitre per hour per cycle.

"Reduced transpiration and over irrigation can result in higher root pressure which, in turn, results in fruit quality problems and root and stem diseases," adds Mirza. "It is advisable to reduce the plant density by removing one head from twin-headed plants and target 20 to 25 leaves per plant. This will also help with fruit sizing."

Over winter, increase micronutrients in feed solutions by 25 per cent.

"Try to maintain an active environment so plants are transpiring," continues Mirza. "Botrytis, an infection from leaf pruning, can become serious if proper temperature and relative humidity is not maintained. Infections starts where fruit is cut or leaves removed and moisture condenses on the cut areas."

When dealing with cucumbers, it's important to adjust to lower fall/winter light conditions. Aim for a strong plant with large leaves initially. Both climate and plant vigor should be geared to disease prevention.

"Watering cucumbers needs to vary greatly from day to day," says Mirza. "With the decline in natural light, watering should be adjusted accordingly. Water after 9:30 a.m. in good light conditions, delay another hour if it is cloudy. Complete the irrigation cycle by 6:00 p.m. in good light and make adjustments based on light and your monitoring of the over-drain."

Increase the amount of micronutrients by 25 per cent for cucumbers, also. Botrytis infection can also be a problem with cucumber plants, so practice temperature ramping from day to night so no moisture condenses on the cut areas.

Always avoid fruit overloading in the fall.

Contact: *Dr. Mohyuddin Mirza*
(780) 422-1789

Check out winter cereals

Winter cereals are receiving new interest in Alberta. This is probably due to several factors, but the yields coming off some winter wheat and fall triticale fields this year will probably encourage the trend. Yields as high as 80 bushels per acre are not normal, but they are possible.

"Winter cereals are quite flexible in the way they can be used," says Ron Hockridge, crop specialist with Alberta Agriculture, Food and Rural Development, Wetaskiwin. "Many people have sown fall rye for fall pasture and taken a grain yield off the following summer. The same can be done with the other winter cereals, but they are somewhat less winter hardy, so fall pasturing can have a greater effect on the probable grain yield. Most farmers consider the grain to be a bonus when they have planted it for pasture anyway."

Winter cereals can have benefits in weed-control programs too. Since they are planted in the fall, they will provide a quick ground cover in the spring. They gain a competitive advantage over annual weeds at an early stage. Winter annuals such as stinkweed can create a problem but most of these weeds are easily controlled with some of the cheaper herbicides. If you are looking to minimize input costs, fall planting has some advantages.

Managing a fall cereal depends on what result you want. For example, planting early will produce more growth in the fall. This is good if you are looking for pasture but too much growth in the fall increases the incidence of diseases like snow mould. Planting too late does not give the crop enough time to develop before winter, and you may have a thinner crop in the spring. Researchers in Lacombe claim the best time to seed for grain is the beginning of September. Some central Alberta farmers have had good luck with seeding a week and a half earlier and others have had more luck seeding close to the middle of September. Certainly the type of fall weather being experienced is an important factor.

Some of the detriments to seeding fall cereals in the past included poor disease resistance, weak straw and difficulty in fitting them into a continuous cropping rotation. All that has

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changed. Newer varieties have been bred for disease resistance and lodging resistance. Recent developments with canola have made fall seeding of that crop more feasible so the possibilities in crop rotations have started to open up.

Fall cereals still have their risks. Weather conditions may prevent proper preparation for winter. A more frequent problem comes from early spring heat followed by a killing frost after the crop has started to grow. Snow cover and the intensity of cold weather in the winter are other factors that you cannot control.

Winter cereals are not for everyone. The newer varieties do have more potential in central Alberta than their use would indicate.

Contact: Ron Hockridge
(780) 361-1240

Does your rural business pass the signage test?

When consumers make the decision to visit a market garden or other rural business, it's up to the proprietors to make it as easy as possible for potential customers to find the farm.

"On many occasions, I've had to use my cell-phone to find my way to farms and rural businesses. Relying solely on verbal directions, leaves too much to chance and to the skill, or lack thereof, of the people following these directions," says Kerry Engel, rural development specialist-business with Alberta Agriculture, Food and Rural Development, Westlock. "A big obstacle when making a rural business easy to locate is signage or the lack of it!"

Go north three miles – is a statement that doesn't help a lot when most cars use kilometres. Most people know how to convert miles to kilometres, and this probably just slows them down for a couple seconds, but the name of the game is make it as easy and as straight-forward as possible.

Turn at the farm with the big red barn – guess how many big red barns there are in any given area of Alberta.

Turn left on secondary xxx – believe it or not, some secondary road signs are only visible from one direction!

"Chances are, most people don't drive around with a county map and a legal land description," continues Engel. "They are relying on directions and signs. Signage and clear roadside signs are a very important marketing tool that is overlooked by many rural businesses. Regardless of what you're trying to sell off the farm: vegetables, bulls or chickens – signs are particularly critical once customers are near your business."

Engel advises rural business managers take a ***Sign Test*** to rate how effective your signs are. "All of the points listed in the ***Sign Test*** can help customers reach your farm business with greater ease," explains Engel. "Over half of the business battle is getting people to your point of purchase, your farm. Make it as easy for them as possible. You'll be glad you did."

Go through the following list of points, sort of a ***Sign-Test***, and see how your businesses stands up!

My signs:

- are done professionally
- are well maintained
- are easy to read
- contain no more than six words
- contain a one- or two-word focal points to catch interests (eg: U-Pick)
- are made from one of these easy to read color combinations: black, dark blue, bottle green or scarlet red on white, yellow, orange or green
- have good white space or margins, making it easy to read
- contain a simple logo, that provides easy recognition
- the entrance to my farm/business is clearly marked
- have an initial road sign at least 2,500 feet from the entrance (this allows travelers a safe stopping distance)
- have advance road signs that state the distance to my business (eg: Smith Simmental Farm- 5 km)
- start from the nearest major highway and clearly direct visitors to my business location.

For more information on erecting signs in your county contact the local municipality and ask for the development officer.

Alberta Agriculture's rural development specialists-business maintain excellent resource libraries with many reference books available for farms involved in farm gate sales/direct marketing. Contact one of the following specialists for further information.

Alberta Agriculture's rural development specialists – business:
Kerry Engel in Westlock (780) 349-4465;
Lori-Jo Graham in Claresholm (403) 625-1445;
Linda Hawk in Medicine Hat (403) 529-3616;
Sharon Homeniuk in Stony Plain (780) 963-6101;
Tim Keating in Falher (780) 837-2211;
Morley Kjargaard in St. Paul (780) 645-6301;
Jackie Anderson and Donna Fleury in Airdrie (403) 948-8537;
Janice McGregor in Morinville (780) 939-4351;
Leona Reynolds-Zayak in Vermilion (780) 853-8101;
Lynn Stegman in Red Deer (403) 340-7010;
Jan Warren in Vulcan (780) 485-2236; and,
Marian Williams in Camrose (780) 679-1210.

Contact: Kerry Engel
(780) 349-4465

In preparation for next year's strawberry production

Fruit growers in Alberta will want to ensure that good soil moisture is maintained in Junebearing strawberry beds to ensure maximum branch crown and flower bud formation for next year's production. Old weeds should be removed and some cultivation between rows to eliminate weeds, incorporate straw and aerate the soil should be done.

"Day neutral strawberry producers are finding irrigation frost protection beneficial during fall months," says Lloyd Hausher, provincial fruit crops specialist with Alberta Agriculture, Food and Rural Development, Brooks. "Much of the year's income can be wiped out in one chilly night. Field warming through the use of irrigation during periods of frost is a relatively inexpensive form of insurance. Growers planning to use irrigation as an insurance against frost should plan their fields with sufficient slope for drainage. Straw mulch within the row is also a definite asset."

Irrigation protects plants from frost because water releases heat as it freezes on the plant, keeping the plant parts above freezing. Protection with irrigation can be obtained down to approximately -6.6 degrees Celsius.

"Producers often experience one or two frosty nights in September and into October followed by weeks of 'Indian Summer'," says Hausher. "Frost protection at this time is invaluable as plant level frost at temperatures of -1 degree C may cause slight injury to open flowers; medium injury may occur to open flowers at -2 degrees C; and severe injury to buds can occur at plant level at -3 degrees C."

Producers may find it beneficial to have accurate thermometers stationed throughout their field, especially in depressional areas. Irrigation should commence when the temperature at ground level reaches one degree C.

"Ice formation of one centimetre in thickness can form without serious damage to plants," adds Hausher. "Ice may not form immediately, though once formed, irrigation should continue until the ice melts off the plants."

As well as taking frost protection precautions, strawberry growers should be making arrangements for obtaining clean rye or wheat straw for mulch. If possible, prior to purchasing straw, it is a good idea to personally walk the farmer's fields to decide how clean from weeds the straw will be. If the farmer is agreeable, running straw through the combine twice also reduces the amount of weed seeds retained.

Contact: Lloyd Hausher
(403) 362-1309

A new high school program available in agriculture

Alberta Agriculture, Food and Rural Development and Alberta Learning have teamed up to increase the opportunities for young Albertans to prepare for successful careers in agriculture. Together they have introduced a new high school agriculture program called the ***Green Certificate Program***.

"Alberta Learning is very pleased to advise Albertans that the Green Certificate Program of Studies is available for piloting in Alberta high schools during the 1999/2000 school year," says Dr. Mike Alpern, program manager Policy Unit/CTS Unit with Alberta Learning. "A copy of the program of studies for each set of Green Certificate courses was sent to all Alberta high schools prior to the current school year."

Students can choose a program of study from any one of the following seven career-specific specializations: beef feedlot production, cow-calf production, crop production, dairy production, irrigated crop production, sheep production or swine production. Within each program of study, students take three technician level courses, earning them a Green Certificate and 16 high school credits upon successful completion. Course names and codes can be reviewed at any Alberta high school.

"Students learn on the job, under the direction of experienced farm personnel and under the supervision and administration of Alberta Agriculture and Alberta Learning," adds Robert Hornbrook, supervisor of the Green Certificate Program with Alberta Agriculture, Food and Rural Development.

The program is a terrific example of innovation and teamwork that provides young Albertans effective agricultural learning pathways while building closer links among the school, the student and the local community.

If you would like more information contact Alpern at (780) 422-3272, Edmonton, or by e-mail at **<MAlpern@edc.gov.ab.ca>** or contact Hornbrook at (780) 427-4218, Edmonton, or by e-mail at **<robert.hornbrook@agric.gov.ab.ca>**. Alberta government numbers are toll-free by dialing 310-0000 first.

Contact:	*Mike Alpern*	*Robert Hornbrook*
	(780) 422-3272	*(780) 427-4218*

Umbrella group forming for alternative crops growers

Good news for alternative crop growers! A group of alternative crop growers in western Canada is in the process of forming an organization. Representatives of several groups, including the Alpine Herb Growers, Native Plant Producers Association, Peace Value Added Food & Ag Association, Organic Crop Improvement Association, Ginseng Growers, Flower & Herb Growers Association and some individual producers, have held two meetings working towards the formation of an umbrella group.

"This group has come together at the invitation of the Flower & Herb Growers Association of Alberta to form an umbrella group for joint marketing, processing and promotion of their products," says Betty Birch, rural development specialist-organizations with Alberta Agriculture, Food and Rural Development, Stettler.

"At the first meeting, some common issues concerning marketing, certification, education, processing, research and development, value added chains and enhanced industry coordination were discussed. From this, a decision was made to take the initiative towards establishing an umbrella group for alternative crops."

The second meeting concentrated on identifying a name, purpose and some structure for the group. It was decided to establish the group as a registered society and name it ***Alternative Ag Products Council of Western Canada***. A mission statement was drafted and some immediate goals were established.

"The group met again on September 28, 1999 at CDC North to review progress, review the proposed by-laws, look at how the Council office will be established and develop the next steps in the process," adds Birch.

Carmen Andrew and Betty Birch as rural development specialists - organizations, along with other Alberta Agriculture Staff, Nabi Chaudhary, chairman of the special crops products team and Dr. Stan Blade, director of the Crop Diversification Centre North (CDCN) have been involved in the meetings of this group.

If you have any questions about this emerging group you can call Birch or Andrew at (403) 742-7500. Government numbers are toll-free by dialing 310-0000, first.

Contact:	*Betty Birch*	*Carmen Andrew*
	(403) 742-7500	*(403) 742-7500*

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Exporting?

If you are thinking about exporting products or services, the ***Getting Ready For Export*** seminar will be of interest. Sponsored by Western Economics Diversification Canada, Alberta Economic Development and Alberta Agriculture, Food and Rural Development, this seminar covers topics such as: defining a company's export potential; researching the target market; market entry strategies; pricing tactics; shipping, customs and documentation; managing the export risk; and, how to write an export plan. The seminar dates, locations and contacts are:

October 12, 1999		
Cochrane	Keith Sinclair	(403) 932-5220
November 3, 1999		
Claresholm	Jeff Motherwell	(403) 381-5414
February 4, 2000		
Red Deer	Gerry Gibbons	(403) 340-5300

Cost of registration is $30 per person. Pre-registration is advised.

Fall greenhouse clean-up

At this time of year, both hobby and commercial greenhouses should be cleaned up to be ready for next spring's plantings. The use of commercial bleach at 1 to 18 parts water is generally satisfactory to disinfect the greenhouse. Spray nooks and corners, benches, floors and other areas thoroughly. Always be careful when using bleach. Plastic trays can be soaked in bleach solution at 1 part bleach to 10 parts water. Wash the trays thoroughly to remove old growing medium before soaking them. Soaking for 24 to 48 hours is recommended and follow this with a thorough water rinse. For damaged trays and plastic sheets, in larger Alberta centres, plastic is collected for recycling. Check out local town or recycling depots to see if they will accept these materials. For greenhouse growers and enthusiasts, ***Greenhouse Coverings*** is a free monthly publication produced by the Greenhouse Crops Program of Alberta Agriculture, Food and Rural Development. Subscription forms are available by contacting Jim Calpas, greenhouse crops specialist, Crop Diversification Centre South, (403) 362-1312, Brooks, or Dr. Mohyuddin Mirza, greenhouse specialist, Crop Diversification Centre North (780) 415-2303, Edmonton. ***Greenhouse Coverings*** is also available on Alberta Agriculture's internet site at <**http://www.agric.gov.ab.ca/crops/hort/grnhouse/**>.

Hort Congress bigger than ever

The Alberta Horticultural Congress, being held at the Mayfield Inn and Suites, Edmonton, on November 11 to 13, 1999, has grown even larger than forecast. The 1999 Hort Congress boasts over 90 presentations, with approximately 70 speakers contributing to the information program. Among highlights of this years presentations are: Growing Black Currants; Marketing Black Currants; Fresh Fruit and Vegetable Pre-cooling; Ammonification of Straw Mulch for weed control; Production and Use of Compost at Reilly's Summer Seat Farm; and, The National Organic Standards. Three of the presentations planned for the Congress are: containers and Hanging Baskets by Dr. Konjonoian; Canadian Nursery Research by Rick Durand, Jefferies Nurseries; and, Troubleshooting Greenhouse Vegetables by Dr. Jim Portree. The Prairie West Horticultural Trade Show held in conjunction with the Congress is also going to be bigger and better with some 230 booths exhibits. Pre-registration is $100 for Landscape and Nursery Trades Association (LANTA), Fruit Growers Society of Alberta (FGSA), Flowers and Herb Growers Society of Alberta (FHGSA), Alberta Market Gardens Association (AGMA) or the Alberta Greenhouse Growers Association (AGGA), members and $110 for non-members. Pre-registration rate ends on October 17, 1999. For further information, be placed on the mailing list or receive a registration form, contact Shirley Alton, Congress coordinator, in Edmonton at (780) 415-2324.

Agri-News

October 11, 1999

from Conflict to Cooperation

Many Alberta communities are making decisions on complex issues by involving everyone who has a stake in the outcome in the decision-making process. This process is known as building consensus.

"Using this consensus process for decision making provides a forum that encourages new partnerships and models cooperative problem solving," says Maureen Barnes, rural development advisor with Alberta Agriculture, Food and Rural Development, Edmonton. "Everyone who has a stake in the outcome works together to reach agreement on actions and outcomes."

"To help interested communities, a booklet, ***from Conflict to Cooperation*** illustrates seven examples of how Albertans have worked together to reach agreement," adds Barnes. "Stories featured are about land use and land management planning, land annexation agreement, a road re-alignment, and the formation of a proactive watershed group. The stories reflect conflicts that were long-term and long-held. Some had reached the stage of legal action. Emotion and tension were common. Other stories are about groups that even though they traditionally hadn't worked together, identified a problem, came to agreement and took action to prevent problems. As the Alberta success stories in ***from Conflict to Cooperation*** demonstrate, a consensus process can bring agreement and solutions to complex situations.

"In consensus building, participants work together to design both a process and an outcome that maximize their ability to resolve differences. All parties gain a better understanding and respect for the different viewpoints represented. Although all parties may not agree with certain aspects of the final package, a consensus is reached if all participants can accept and live with the entire package. As a result of using a consensus process, decisions are often better informed, more creative, balanced and enduring."

As a collaborative effort between Alberta Municipal Affairs and Alberta Agriculture, Food and Rural Development, ***from Conflict to Cooperation*** introduces user friendly 'tools' that community groups and decision makers can use to reach agreement on contentious and complex issues.

from Conflict to Cooperation is available on the Alberta Agriculture Internet site at <http://www.agric.gov.ab.ca/c2c/> or for more information about using consensus processes for decision making, contact Barnes, Diepeveen or any rural development specialist-organizations, through your local Alberta Agriculture office.

Contact: Maureen Barnes (780) 427-4369

Bill Diepeveen (780)427-2225

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Alberta AGRICULTURE, FOOD AND RURAL DEVELOPMENT

Honey by any other name...

The issue of pasteurized and unpasteurized honey has been the cause of much discussion for the Canadian Honey Council and the Canadian Food Inspection Agency Advisory Committee (CFIA).

"Honey has a high sugar content which doesn't support the growth of bacteria," says Heather Clay, executive secretary for the Canadian Honey Council (CHC), Calgary. "Despite this fact, many medical professionals mistakenly think that pasteurization of honey is important to kill bacteria."

The need to pasteurize honey is often confused with the potential of infant botulism. Botulism spores are very hardy organisms found throughout the environment in soil, on unprocessed agricultural products, corn syrup and occasionally in honey, whether pasteurized or not. Infants under a year of age sometimes do not have a mature enough intestine to digest these spores and the botulism produces a toxin that can make a baby sick. For this reason, it is not recommended that infants be fed honey.

"Pasteurization of honey is a marketing issue – not a health issue," says Clay. "The heating process in pasteurization extends the shelf life of honey by destroying the natural 'seed' crystals that cause granulation and fermentation. Natural sugar-tolerant yeasts are present in honey and they will grow if the moisture level is over 18 per cent and storage temperature is too warm. Honey is more likely to ferment after it has granulated. A pasteurization process is used to kill the sugar-tolerant yeasts to prevent granulation and fermentation."

In the bulk honey industry, where packers want the product to remain liquid for a long period of time, pasteurization is necessary. Commercial equipment is made to heat honey quickly to 71 degrees Celsius (160° F) for four minutes and then cool it quickly through a heat exchanger. Without this specialized equipment, beekeepers run the risk of lowering the quality of their honey. Many producers prefer to pack honey that has not been exposed to any significant heating process.

"The problem lies in the term 'unpasteurized' and the term natural is misleading as it can mean anything as long as it isn't synthetic," continues Clay. "While the term 'unpasteurized' appeals to certain customers and there is a growing market for this natural product, many consumers think that the word unpasteurized suggests that there is a health issue with honey, which simply is not the case."

The CHC feels that the term unpasteurized is misleading. In an attempt to find alternative, descriptive labeling, the CHC is participating with the CIFA labeling review committee to decide whether to abandon the term unpasteurized and to come up with a more appropriate label for honey that has not been through a heating process.

"We are asking anyone with ideas or comments on possible suggestions on the issue of labeling unpasteurized honey to contact their provincial CHC delegate or contact the CHC office in Calgary directly at (403)208-7141 or by e-mail at <**chc-ccm@telusplanet.net**>," says Clay.

More information on honey and on the CHC is available on the Canadian Honey Council's website at <**www.honeycouncil.ca**>.

Contact: Heather Clay
(403) 208-7141

Black currant oil helpful to dry skin

Herbal remedies, medicinal plants and plant extracts are gaining popularity in North America. There is an increasing number of natural oils, tinctures and tonics to be found at natural product or health food stores. What many thought were antiquated natural remedies are being re-visited and some very interesting findings using scientific research are being found.

"Some types of dry skin can be caused by a Gamma-Linolenic Acid (GLA) deficiency in our diet," says Lloyd Hausher, provincial fruit crops specialist with Alberta Agriculture, Food and Rural Development's Crop Diversification Centre South, Brooks. "Some very common native plants and prairie fruits are known to contain high levels of oils and GLA fatty acid. Probably the most common here in Alberta are black currant oil, borage oil and evening primrose oil. Alberta's winter weather can be especially dry and our climate does effect our skin. Supplementing our daily intake of GLA can help combat these external causes of dry irritated skin."

Omega-6 and Omega-3 are the two main essential fatty acid groups. Omega-6 fatty acids are found in most vegetable oils, nuts and seeds, and in evening primrose, borage and black currant oil. An article in the *Essential Fatty Acid Nutrition News, Issue 3:1*, states that essential fatty acids (EFA) are important for healthy skin and contribute to the skin's natural lubrication. EFA are structural components of cell membranes, ensuring fluidity and stability. As components of skin cell membranes, they help regulate moisture loss and protect the skin from injury and infection. The beneficial effect realized by including sufficient EFAs in a diet can be alleviation of redness, pain and itching, symptoms of conditions such as dermatitis, eczema and psoriasis.

"Research has been conducted on humans and the results indicate that skin disorders associated with essential fatty acid deficiencies can be corrected through dietary supplementation with GLA-containing plant oils," continues Hausher.

Borage oil, evening primrose oil and black currant oil are all available at health food outlets and usually come in capsule form. Oil for topical application can also be easily found.

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The GLA content of some plant/fruit oils is:

• Borage Oil	24%
• Black Currant Oil	17 %
• Evening Primrose Oil	9%
• Hemp Seed Oil	2%

Black currants, grown abundantly in Alberta, provide 202 mg of Vitamin C per 100 grams. As well as being an excellent source of GLA, black currants also provide one of the highest levels of Vitamin C.

Contact: Lloyd Hausher
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Renting grain storage

Grain storage and the rental of grain bins is always a subject that comes up in the fall. Unfortunately, there is not a ready market place to determine what rent should be.

"A few years ago, one of Alberta Agriculture, Food and Rural Development financial specialists worked out some average grain-storage values. To cover all costs, a standard point of rent-value for grain bins could be set at between $0.10 to $0.20 per bushel, depending on the size of the bin and its features, such as hopper bottoms," says Gordon Frank, crop specialist with Alberta Agriculture, Food and Rural Development, Brooks. "This rate can vary greatly from this range, however. Farmers often trade storage for other barter. The so-called 'good-neighbor' rate could vary in some instances. Some farmers are also willing to rent for less because depreciation and interest on the storage bins are the same whether full of grain or empty. In these cases, ownership costs are already calculated in and lower rates may be accepted and viewed as additional, unexpected revenue."

A reasonable rent calculation depends on a number of assumptions. Bin owners need to be concerned with depreciation, interest, repairs, taxes and insurance. Owners will want as much of these operating and ownership costs covered as they feel is reasonable.

"Repairs to bins are hard to determine, but should be considered," adds Frank. "It should be determined up-front which party is responsible for undue damage, such as if a door is backed into or a lid is torn off."

Simple calculations show that larger bins cost less per bushel of capacity and are likely to be rented for less cost per bushel. Very small bins also rent for less because of the extra labor required to fill and empty them.

"The calculated values given here can be used as a starting point. Rates should then be modified to reflect local supply and demand along with the 'good-neighbor' influence," concludes Frank.

Contact: Gordon Frank (403) 362-1212

Packing lunches

Many Alberta children take packed lunches to school every day. Sending a nutritious lunch takes a little planning and work, but it's an excellent opportunity to help establish good eating habits for good health

"Regardless of age, a nutritious lunch needs to have at least one food from each of the four food groups," says Linda St. Onge, food scientist and nutritionist with Alberta Agriculture, Food and Rural Development, Leduc. "The four food groups include meat or alternatives; grain products vegetables and fruit; and milk products."

The following list contains recommended daily serving needs for children.

Meat and alternatives – two or three servings per day Serving size examples could be: 50 to 100 grams (two to three ounces) of meat, poultry or fish; one to two eggs; two tablespoons of peanut butter

Grain products – at least five servings per day. One slice of bread is one serving. One bagel, pita or bun, or one cup of rice or pasta equals two servings

Vegetables and fruit – at least five servings of per day Examples of one serving are: one medium sized banana, orange, apple, carrot or potato; one cup of salad or a half cup of vegetables, fruit and or their juice. Be sure the juice chosen is real juice and not a 'drink' or 'beverage'.

Milk products – up to the age of 10, children need three servings per day. Children over 10 years of age need about four servings. One serving of milk is 250 mL (1 cup), the size of a small milk carton. This size of a serving provides about 310 milligrams of calcium. Cheese and yogurt are also excellent sources of calcium, 175 grams of yogurt or two slices of cheese equal one serving.

"Sandwiches are always a lunch favorite," says St. Onge. "Peanut butter is excellent, nutritious, easy to pack and kids usually like it. Sliced meats, chicken, fish or egg sandwiches are also high on the favorite list. Cheese is also a good choice. Fresh fruit is available all year and just as easy to pack as the more expensive individual fruit cups. Most kids like raw veggies, and carrots, celery sticks, broccoli and cauliflower bites make great lunch and break time snacks."

It's tempting to stock up on individually portioned snack items, such as crackers with little cups of cheese, juice boxes, pudding cups and canned fruit cups. However, it's important to choose convenient foods carefully. Sometimes the portions provided are less than a serving size as outlined in Canada's Food Guide. They may cost more and be less nutritious than similar foods easily prepared at home.

Contact: Linda St. Onge
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Multi-media resource guide

Alberta Agriculture, Food and Rural Development's multi-media branch has released a new guide listing over 500 videos and CD-ROMs that are available for loan. This is the most comprehensive assortment of agriculture and food-related audio-visual materials in western Canada. In the new guide, almost 300 dated titles have been deleted, and new titles and comprehensive packages have been added. The guide also includes the first seven CD-ROM titles available through Alberta Agriculture. The new guide is available from Alberta Agriculture's web site at **<http://www.agric.gov.ab.ca/ministry/comdv/video/loan/index.htm>**.

Viewing copies are also available at all Alberta Agriculture RAS district offices, and at the multi-media branch at 7000 - 113 Street, Edmonton, AB T6H 5T6.

Special speaker scheduled at the 1999 Hort Congress

Conrad Richter, who has a Masters of Science in botany from the University of Toronto, will be speaking at this year's Alberta Horticultural Congress. Richter serves on the boards of the International Herb Association Foundation, The Canadian Herb Society and the Ontario Herbalists Association. He is also on the board of Agriculture Canada's Medicinal Herbs Research Advisory Committee. Richter is the vice president of Richter's in Ontario and helped put out the first herb catalogue in 1970. The Hort Congress is being held on November 11 to 13, 1999 at the Mayfield Inn, Edmonton. Richter will be speaking on November 11. For further information, contact Shirley Alton at (780) 415-2324, Edmonton.

1999 Feed Barley quality competition

The Alberta Barley Commission (ABC) would like to remind farmers who haven't received their entry packages that it's time to register for the 1999 Feed Barley Quality Competition. For the more than 260 farmers who have already registered and received their package, it's time to collect this year's feed barley samples for the competition. The aim of the competition is to raise awareness that animal nutritionists and feeders are demanding more quality in feed barley and that it is not just the destination for all non-malt barley. Competition judging is based on quality characteristics as determined by the end user -- hogs or cattle. Alberta farmers are eligible to win over $38,000 in prizes. The deadlines for the competition are:

- **October 31** – samples must be taken by a contest supervisor and sent to the Commission office. The first 100 entrants who send in their samples get a free T-shirt
- **December 1** – Prizes will be awarded at an evening awards banquet at the Greenwood Inn, Edmonton, as part of ABC's annual meeting.

For further information, contact Annette Baker, project coordinator with Alberta Barley Commission, (403) 291-9111, Calgary. Information about the feed barley quality competition is also available on the ABC website at: **<http://www.albertabarley.com/newpage/fbqc.html>**.

Agri-News

October 18, 1999

Warning: Ergot in feed grains

There have been several reports from various parts of the province of the presence of ergot in this year's crops of wheat, barley and triticale.

"This is not a surprising occurrence, considering the wet cool spring weather we had this year," says Sam Jaikaran, swine nutritionist with Alberta Agriculture, Food and Rural Development, Edmonton. "These conditions were very conducive to infection in cereal crops at the flowering stage by the ergot fungus, *Claviceps purpurea*. Dark-colored sclerotia (ergot bodies) form in the head as the crop matures. Sclerotia contains chemicals that are powerful toxins to animals."

The feeding of ergot causes swift and debilitating reactions in livestock. All classes are affected. The toxins in ergot are mainly alkaloids and amines, which cause restriction of small blood vessels and psychotic behavior in livestock. Restriction of blood vessels results in spontaneous abortions of pregnant animals and cessation of milk production. Gangrene of the extremities of limbs and tails of animals is common when ergot-infested feed is fed over an extended period of time. When the feed contains ergot, feed intake is severely reduced and animals may show some of the following symptoms: vomiting, diarrhea, abdominal cramps, respiratory distress, salivation, convulsions, lack of coordination, depression and even death.

"The feeding of ergot-infected grain must be carefully controlled," says Jaikaran. "The limit of ergot bodies must be no more than one ergot body per 1000 kernels of grain. Preferably, no ergot should be given to reproducing females. Cereal grains should be carefully inspected before feed is made because there is no easy way to detect ergot after it is ground into feed."

Contact: *Sam Jaikaran*
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sam.jaikaran@agric.gov.ab.ca

Business Expo '99

To celebrate small business week, the Business Advisory Network has planned an exciting day for central Alberta entrepreneurs. **Business Expo '99** is scheduled for October 28, 1999 in Red Deer.

"Business Expo '99 includes networking opportunities, speakers and seminars," says Joyce Lencucha, agri-food development specialist with Alberta Agriculture, Food and Rural Development, Red Deer. "The day begins with breakfast and speaker Bill Clennan, who will entertain while inspiring us with new ideas to create customers and increase chances of making a sale by 60 times."

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Luncheon speakers are Barbara Thrasher and Madelon Smid authors of the best selling book *Smart Women, Canadian Entrepreneurs Who Make Money*. Thrasher is president of Communicating Power, Inc., an Alberta based national marketing company that actively implements profit-building strategies for small businesses. Responsible for developing one of Canada's most successful strategic business planning programs, *Enterprise and Innovation*, she has been actively involved in the start up and growth of over 1000 small businesses in every sector from the oil patch to candy making. Smid is an author currently living in Manitoba who along with Thrasher interviewed hundreds of Canadians, distilled the information and is committed to helping entrepreneurs run profitable companies and live prosperous lives.

"The theme for 1999 small business week is ***Improving Productivity***," continues Lencucha. "Planners incorporated this theme into Expo '99. Twelve seminars have been planned and topics include: financing, e-commerce, advertising, marketing and managing succession. Panels of central Alberta business people will share their experiences and the challenges of growing a business – by moving from home based to commercial space, by exporting and by introducing new technology into the operation."

Business Expo '99 is priced at $59.95 and includes your choice of sessions, meals and networking opportunities. To receive a copy of the brochure or for more information call 310-0000 then 340-5358. Tickets are available from Ticket Master at (403) 340-4455.

Contact: Joyce Lencucha
(403) 340-5358

Showcasing companies with effective displays

An effective display is an important tool for entrepreneurs when show casing products. Displays, when designed and used correctly, can help persuade people to buy a product or service.

"Displays should be designed to attract attention," says Joyce Lencucha, agri-food development specialist with Alberta Agriculture, Food & Rural Development, Red Deer. "Knowing your customer is a necessity. Displays must be directed at your target market, the buyers."

A workshop, ***Merchandise Your Products Through Effective Displays***, is being held in Red Deer on October 27, prior to **Business Expo '99**, which gets underway on October 28. Several display tips will be given at the workshop that can help Albertans display their products to their best advantage.

"Some of the display advice includes looking for props that enhance the product and attract attention," says Lencucha. "Shelves of different heights, small barrels or boxes draped with fabric, baskets, trays, tree branches and peg boards are all effective and add movement and energy to a display.

"Access to a display should be easy. Viewers need to feel invited and welcomed into a booth space or they won't spend much time there. Space to talk without feeling crowded encourages customers to linger, to browse and to buy. The entire booth should be bright and inviting."

If the product or business has a logo or name, use it on all signs and promotional materials. Think big when designing signs and posters. There is often only a moment or two in which to make an impression on a passing customer.

"Color and graphics should be consistent and pleasing to the eye," adds Lencucha. "Remember to leave some 'white space' especially around the products."

The one-day workshop giving hands-on experience, is facilitated by Rosemary Stefaniuk a display and merchandising specialist with over 20 years experience. It will provided new and innovative ways to create an eye catching display and give attendees some insight on how to create displays with simple and inexpensive props and how to effectively use color, signage, lighting and themes.

"Workshop participants' displays will be part of the **Business Expo '99** trade show where the 200 Expo participants will have the opportunity to view them," says Lencucha. "Cost of the pre-conference workshop, including attendance at Business Expo '99 is $130. For more information or to receive a copy of the Business Expo '99 brochure, call 310-0000 then 340-5358. Tickets are also available from Ticket Master (1-403-340-4455).

Contact: Joyce Lencucha
(403) 340-5358

Fall yard care

The sound of the geese and the change in the leaf color means that fall is here again. Spending some time in the yard now will pay off next year.

"The tops of most of the herbaceous perennials can be cut off or left standing with the exception of peonies, iris and lilies where the tops have to be cut back," says Shelley Barkley, information officer with Alberta Agriculture, Food and Rural Development's Crop Diversification Centre South, Brooks. "The removal of the tops helps to prevent overwintering of diseases and insects while leaving this material can help to hold a snow cover during the winter as well as it can be attractive. Newly planted perennials benefit from a mulch of clean material such as straw, or dry grass and leaves mixed together. Apply the mulch after the ground has froze. Mulching now will help to prevent the plants from being forced from the ground. Stake to mark the plants that need to be moved and divided early in the spring."

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Mulch strawberry patches when the temperature drops to -7 C and stays there for three or four nights. Water the plants well, then cover with oat straw or a grass and leaf mixture. Watering lightly after applying the mulch will help hold it in place. A mulch layer five cm deep after settling will keep the plants safe. Watch for signs of mice during the winter and treat as necessary.

"The wintering of tea roses begins in the summer," says Barkley. "Stop fertilizing the plants at the end of July, and in August, cut roses with shorter stems. Cut back the water, in September, but never let the plants dry out. After several hard frosts, the winter insulation is put in place. Water the plants well, head the canes back to 20 to 25 cm. Put about 30 cm of insulating material like peatmoss, compost or soil around the canes and the crown, but do not pack the material too tightly."

Cutting back the water to woody plants and perennials in August will start to aid the plants in preparing for winter. It is important to have a reserve of moisture in the root zone for all plants in the yard to prevent root damaged during the winter. Fill the soil profile with water in mid-October or just before the ground freezes.

"Early fall is a good time for weed control in the lawn," adds Barkley. "Broad leaf herbicides for lawns applied on a warm day will control dandelions, chickweed and clover. Keep mowing the lawn as long as it continues to grow, to prevent damage to the crown of the grass, cut the lawn 5 to 6 cm long."

Raking the leaves tidies the yard and removes overwintering sites for many insects and diseases. The dried leaves can be stockpiled for adding to next years compost pile.

"Since winter can fade the memories of the summer, make a few notes for next year, what worked, what did not and what to try for next year," advises Barkley.

Contact: *Shelley Barkley*
(403) 362-1305

Wildflower wonderland

"My love and appreciation of wildflowers and native vegetation began on my parent's farm when I was a young child," says Madeleine Melenka, Vegreville. "My interest and knowledge developed and grew as I did."

Melenka, who lives with her husband, Eugene, on a farm north of Vegreville, has always had a concern for the survival of wildflowers and native vegetation and this concern presented a challenge to her.

"Focusing on a goal – to provide a safe environment for wildflowers to flourish and survive for future generations, the Melenka farm provides a perfect setting for Melenka's study of natural vegetation and gives her the space to work towards achieving her goal," says Cathi Hayduk, client services representative with Alberta Agriculture, Food and Rural Development, Vegreville.

"From an early age, I always carried a spade and a plastic bag. When I saw native vegetation in danger of being extinguished by livestock grazing, road construction or drift from chemical spraying, I rescued plants by replanting them at home," says Melenka.

Transplant efforts entailed carefully digging around the endangered specie, removing the plant intact with soil and grass and placing her treasure in a plastic bag. At home, she would plant the whole clump in prepared soil, with as little disturbance to the plant as possible. A cover then protected the plant from sun and wind. Melenka hand watered transplanted plants and when they were well established, the grass and weeds would be picked from around it.

Four years ago, Melenka designed a garden for her extensive collection of wildflowers and native vegetation. "I had a large expanse of lawn and I kept thinking - this is an ideal spot for a wildflower garden," she adds. "Garden hoses were used to design a 1800 square foot flower garden on the lawn. Round-up was applied in the fall to kill the grass within the design. Then the planting and replanting began the following spring."

The wildflower garden follows a Western theme. Footpaths are paved with field stone that collected by Melenka. Wagon wheels add character and continuance with the Western setting. A trench from a nearby dugout supplies the garden with water.

Some of the vegetation in the garden are Brown Eyed Susans, Buffalo Beans, Golden Rod, Daisies, Blue Grama Grass, Prairie Crocus, Fringe Sage, Wild Columbine, Northern Wheatgrass, Idaho Fescue, Western Porcupine, Green Needle Grass, Western Red Lily, Cactus and Lady Slipper.

For her wildflower garden, Melenka collected seeds and endangered species from near and far, travelling to Drumheller, Bonnyville and even into Saskatchewan. Some of the vegetation came from her own yard. Some beautiful little wild violets, that were cut down every time the lawn was mowed, were carefully moved and replanted in a "safe" place.

Friends, family and acquaintances also helped by informing her of endangered vegetation growing in their ditches and fields. Melenka's niece, Anne Naeth, a professor at the University of Alberta, collected wild seeds as a part of field research, sharing them with Melenka. "The book, *Wildflowers Across the Prairies*, was invaluable in helping Melenka identify the names of many of the wildflowers," says Hayduk. "The wildflower stands are now well established and the beauty of past labors is enjoyed by family and friends."

"Every time I drive in my yard, I am overwhelmed with the magnificence and splendor of these wildflowers," Madeleine proudly remarks. "My grandchildren love to visit and run along the paths in 'Nana's' wildflower garden. The past year has been much easier. My collection is complete; the garden only requires maintenance now."

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Melenka harvests her own wildflower seeds and replants them, to make the garden fuller. She gives seeds and plants to friends, children and grandchildren to plant in their own gardens as far away as Dewberry, Alberta. While achieving her goal, Melenka enjoys the beauty of the wildflowers and makes space for wildflowers to continue to survive and thrive.

Contact: *Cathy Hayduk*
(780) 632-5400

1998 a challenging year for agriculture

"1998 presented some challenges to the agriculture sector but, as usual, farmers, ranchers and processors met those challenges. We are also committed to meeting the challenges, as our 1998 Annual Report clearly shows," says Ty Lund, Alberta Agriculture, Food and Rural Development Minister.

Alberta's agriculture and food industry faced difficult times during the 1998-99 fiscal year, presenting challenges for the Ministry of Alberta Agriculture, Food and Rural Development.

Significantly lower than expected commodity prices, greater demand for insurance and disaster income assistance, declines in market demand, increases in commodity supply, and trade issues all affected Alberta Agriculture's ability to meet some of the performance measures and financial targets set in the business plan.

"There have been a number of emerging issues in the business of agriculture in the last year but we have been able to respond to those issues, tying in our goals and department structure to meet the needs of the industry," says Lund.

But the challenges also showed the flexibility and strengths of Alberta Agriculture. Thanks to a close connection with the industry, the Ministry was able to quickly respond to such issues as demands for income assistance, trade actions with the U.S., market-growth for value-added products, food safety and livestock industry expansion.

Annual Report Highlights:

- Alberta Agriculture's performance and financial measures highlighted the challenges of 1998-99
- Farm cash receipts totaled $6.381 billion in 1998-99, 3.3 per cent lower than target, due to sharply lower commodity prices, especially for wheat and hogs
- food and beverage shipments totalled $7.479 billion, just short of Alberta Agriculture's $7.76 billion forecast
- Agriculture Financial Services Corporation (AFSC) provided 316 loans totalling $18.3 million compared to 37 loans worth $3.5 million in 1997-98. The loans include the Developing Farmer (quick cash injection) and disaster assistance/crop loss option
- Farm Income Disaster Program (FIDP) was redesigned to allow for priority processing. FIDP payments were $6.8 million higher than the previous year
- Despite the difficulties, Alberta exceeded the $ 7 billion forecast in the total value of shipments of agriculture and food products to other provinces and countries. Shipments totaled $7.5 billion, over target by 7.1 per cent
- total Government Program Payments to farmers and ranchers were lower than forecast. Actual payments were reduced to $238.4 million. The budget for 1998 was $240 million
- Ministry revenues were $342.9 million, a decrease of $12.4 million from 1997-98. While revenues dropped 3.5 per cent, they were still $96.6 million higher than budget
- Government of Canada payments were $35.9 million over estimate due to the new federal farm aid program, Agriculture Income Disaster Assistance (AIDA)
- expenses were up by $45.6 million from last year, largely due to higher income support for farmers in need. FIDP payments were higher than 1997-98. Insurance expenses were also up by $21.7 million as compared to the previous year, mostly due to higher crop insurance payouts to policy holders

Despite the challenges faced by Alberta's agriculture sector in 1998-99, Alberta Agriculture staff continued to work on meeting the goals outlined in the business plan and to adapt programs and services to meet the needs of the industry.

"Our strength has been the close knit partnership we have built with the agriculture and food industry over the years," says Lund. "Because of that close relationship, we are able to respond to the challenges and opportunities as they arise. We will continue to help ensure industry's growth in our province."

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Alberta Agriculture, Food and
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Deputy Minister
Alberta Agriculture, Food and
Rural Development
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Ideal harvest weather in September

"Below normal precipitation and a late frost in September created ideal harvest conditions for Alberta farmers," says Peter Dzikowski, agriculture weather specialist with Alberta Agriculture, Food and Rural Development, Edmonton. "Precipitation totals were below normal in all regions, allowing farmers to make good progress with harvesting."

The provincial average precipitation of 18.3 mm was less than half of the 1961 to 1990 normal of 44.6 mm. The central region reported the lowest amount of precipitation, 6.9 mm or 16 % of normal.

Pincher Creek reported the greatest precipitation departure, 144 per cent of normal. On the dry side, Esther reported 0.4 mm of precipitation in September, only 1 percent of it's long term average.

"The first widespread killing frost occurred around September 26 in most regions, which is about one to two weeks later than average," adds Dzikowski.

The provincial average temperature of 10.3 degrees C was near normal, only 0.2 degrees below the 1961 to 1990 normal of 10.5 degrees C. The northeast, northwest and Peace regions reported above normal temperatures, while southern and central regions reported below normal temperatures.

The provincial averages are based on Environment Canada data recorded at 56 locations across Alberta.

For more information, visit the Alberta Agriculture Internet page at <**http://www.agric.gov.ab.ca** >.

Contact: *Peter Dzikowski*
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Agri-News Briefs

Where to mount fire extinguishers around the farm

On every farm, there are several locations where fire extinguishers should be mounted. These include:

- **shop area** – 10-pound dry chemical multi-purpose A:B:C extinguisher; 5-pound dry chemical multi-purpose B:C extinguisher
- **barn areas** – 10-pound dry chemical multi-purpose A:B:C extinguisher; 2 1/2 gallon pressurized water extinguisher
- **animal health units** – 10-pound dry chemical multi-purpose A:B:C extinguisher
- **farm vehicles** – 5-pound dry chemical multi-purpose A:B:C extinguisher
- **combines** – 10-pound dry chemical multi-purpose A:B:C extinguisher; 2 1/2 gallon pressurized water extinguisher
- **round balers** – 2 1/2 gallon pressurized water extinguisher
- **tractors** – 10-pound dry chemical multi-purpose A:B:C extinguisher
- **fuel storage area** – 20-pound dry chemical multi-purpose A:B:C extinguisher
- **office** – 10-pound dry chemical multi-purpose A:B:C extinguisher
- **grain storage** – 10-pound dry chemical multi-purpose A:B:C extinguisher
- **silos** – 20-pound dry chemical multi-purpose A:B:C extinguisher; 2 1/2 gallon pressurized water extinguisher
- **process areas** – 10-pound dry chemical multi-purpose A:B:C extinguisher
- **chemical storage areas** – 10-pound dry chemical multi-purpose A:B:C extinguisher

Remember to mount all machinery extinguishers on the outside, near the door. All building extinguishers should be mounted near the exit doors. Fire extinguishers placed at fuel storage areas should be at least two metres away so that they are easy to access during fire emergencies. For further information on farm safety, contact Eric Jones with Alberta Agriculture, Food and Rural Development's Farm Safety Program at (780) 427-4231.

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Agri-News

October 25, 1999

The Range: Progress and Potential

The Western Range Science Seminar, ***The Range: Progress and Potential*** is being held January 23 to 25, 2000 at the Lethbridge Lodge, Lethbridge. Registrations are now being accepted for this seminar, specifically designed for the beef industry and people interested in rangeland.

"The three-day seminar features some of North America's most influential speakers on range issues and is an opportunity to learn about the progress made in range science," says Barry Adams, range management specialist with Alberta Agriculture, Food and Rural Development and seminar co-organizer. "Strengthening range productivity, understanding and managing rangeland ecosystems and the issues involved in preserving the range resource for all of society will be addressed during the seminar."

The first full day of presentations begins with *Rangelands: Their functions, our needs and actions*. There will be discussions on carbon storage on rangelands, plant community response to grazing impact, and rangeland food webs.

Range livestock production is another feature presentation and deals with poisonous range plants, water effects on cattle and parasites on cattle. All sessions include Rancher Forums, where two ranchers from Western Canada will have the opportunity to respond and discuss the messages presented by the scientists. The sessions will conclude with question and answer periods, followed by coffee and poster presentations. Throughout the seminar, there will be many opportunities for ranchers to provide feedback to the research community on range research needs.

Ben Alexander from the Sonoran Institute in Bozeman, Montana, is the featured speaker at the Monday evening banquet. He will discuss the urbanization of rangelands in the United States.

"The last day of the conference, speaker topics will cover three categories; *Managing the water supply: Rangelands: Home to ranchers and wildlife*; and, *The future of western rangelands*," adds Adams. "Presentations will be made on rangeland hydrology; riparian systems and their functions; managing cattle to reduce water contamination; and, prairie birds and grazing. Scientists will also discuss living with

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predators and maintaining riparian biodiversity with grazing. A presentation by panelists and a group discussion conclude the session."

The seminar will make new scientific knowledge available to ranchers and resource managers to help them better.

Registration for the event is $80. Fee includes attendance at both days, a copy of the Seminar proceedings, Sunday evening arrival, two lunches and the Monday evening banquet. Space is limited and registrations will be accepted on a first-come, first-served basis.

For registration and accommodation information contact Brenda Chmielewski, Public Lands Division, Alberta Agriculture, Food and Rural Development, Agriculture Centre, #100, 5401 - 1st Avenue South, Lethbridge, Alberta, T1J 4C7. Chmielewski can also be contacted by phone (403) 382-4298, fax (403) 381-5792, or email <**chmiele@agric.gov.ab.ca**>.

Beef producers may also be interested in attending a separate seminar that runs immediately following the Western Range Science Seminar. The National Beef Science Seminar runs from Wednesday, January 26 to Friday, January 28 in Lethbridge. Registration information for the National Beef Science Seminar is available by contacting the Lethbridge Research Centre at (403) 317-2290.

Contact: *Barry Adams*
(403) 382-4299

Farm succession planning – online

Are you planning for the succession of your family farm? Are you concerned about sources of income in retirement, or if your estate plan is fair? Is your plan effective considering legal and taxation issues? Alberta Agriculture, Food and Rural Development has teamed up with Agriculture Institute of Management in Saskatchewan, Inc. (AIMS) to offer ***Farm Succession Planning – Online***, October 25 to December 3, 1999 to family farm businesses in both Alberta and Saskatchewan.

Success in your farm business requires effective planning for the future," says Douglas Duff, with Alberta Agriculture, Food and Rural Development, Olds. "It is important to envision the day when management responsibilities will be transferred. ***Farm Succession Planning – Online*** will better inform participants what succession planning is, why it is important, what are the income tax considerations of succession planning and how to plan adequately for retirement and other future events."

As the name suggests ***Farm Succession Planning – Online***, will be offered using the Internet allowing participants to learn at home, when it is convenient, and save travelling expenses. At the same time, the course offers complete instructor support, quizzes, case study assignments and opportunities to interact with other participants in the course.

The course is offered October 25 through to December 3, 1999, in four modules covering the topics: Retirement Planning; Estate Planning; Income Tax; Wills and Estates.

"The course is designed so that participants can work through a module, complete the quiz that follows each module and respond to the case studies each week," adds Duff. "Participants also have an opportunity to post questions or comment on questions posted on the bulletin board."

Because "Farm Succession Planning - Online" is available on the Internet, certain computer hardware and software requirements must be met. Participants will require access to a Pentium class computer with a sound card and speakers and 28.8 or faster modem. Software requirements are Netscape 3+ of Internet Explorer 3+ internet browser and Real Player (free download from <**www.real.com**>).

In Alberta, participants will access the course through "Agri-ville" which can be found at <**www.agri-ville.com**>. Agri-ville is an interactive online farm community website, where membership is free. The cost of the course is $75. A course description and registration can be attained by clicking on the schoolhouse icon.

"The course is designed to help farm business owners better understand the options they have in business transition, estate and retirement planning," says Duff. "This information will enable farm business owners to develop their own basic estate plan prior to seeking expert advice on legal, taxation, financial and family issues. Emphasis will be placed on the need for adequate estate planning at all stages of life and not just near retirement. Producers will benefit from this course by thinking and planning for the future, earlier in life, rather than waiting until near retirement to begin their planning."

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New resource available for special crop growers

"Several services and resources specifically designed for special or alternative crops growers have been initiated over the last few years," says Karen Goad, rural development specialist, business with Alberta Agriculture, Food and Rural Development, Grande Prairie. "These services are available on Alberta Agriculture's web site <**www.agric.gov.ab.ca**> and by contacting one of Alberta Agriculture's district offices and asking for the name and number of the local rural development specialist."

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Some of these services include:

- **Special Crops Web Board** – major focus is to allow buyers and sellers to communicate with each other regarding the supply and demand of special crops and their products. Users of the network can post their comments or ask questions and respond to questions by other users. Department staff will monitor the board to ensure that all questions are answered. This interaction will help to bring the various players in the industry together to discuss marketing, current issues and concerns.
- **Buyers and Sellers Lists** – lists of special crops buyers and sellers have been created to facilitate marketing of special crops and their products. Clients are encouraged to add their names to this site.
- **Buy or Sell special crops** – a site that allows producers and purchasers to request crops that they wish to buy or list for sale. It offers a unique opportunity to discover what is available and what the demand is in the marketplace.

"The Special Crops Directory and newsletter have been on the web site for a while now, for Albertans growing special crops it is a site that should be checked out," adds Goad. "To access the services go to the website at **<www.agric.gov.ab.ca>** then click on crops/plants and then special crops."

Any questions regarding theses services can be directed to Wayne Goruk at (780)427-3122 or Nabi Chaudhary at (780)422-4054. If calling long distance within Alberta, dial 310-0000 first and wait for the prompt.

"Fresh herb growers may be overlooking an alternative marketing opportunity in their local area," says Bev Smolarchuk, the Grapevine Deli in St. Albert. Speaking at Food Fest '99 in Grande Prairie, Smolarchuk advised conference participants that some fresh herb growers and specialty food processors whose products she carries in her store have had success selling product direct to local people involved in gourmet/dinner clubs. "People in these markets are always looking for fresh, quality ingredients and have difficulty sourcing some of the ingredients from grocery stores. Club contacts can be found through the local Newcomers Club, Welcome Wagon reps or Gourmet Dinner Clubs," adds Smolarchuk.

Contact: *Karen Goad*
(780) 538-2629

Farmers to benefit from Alberta Agriculture Disaster Initiatives

"Disaster assistance initiatives approved today will provide farmers with immediate cash-flow assistance and longer-term program responsiveness," says Ty Lund, Minister of Agriculture, Food and Rural Development.

A new provincial disaster assistance package will provide emergency support this year to approximately 12,000 farmers experiencing severe income losses.

Agriculture, Food and Rural Development Minister Ty Lund announced the package, outlining a series of changes to existing disaster response programs, providing Alberta producers with up to $100 million in assistance this year. This package is modeled after previous Alberta government assistance programs created in response to disasters, such as fire and flood, in other industry sectors.

Lund, who toured the Peace and northeast region of the province earlier this fall, said the Alberta government has been very aware of the crisis that is facing agriculture in the province.

"I have talked with farmers and municipal officials," he said. "There is no doubt this drought and continuous weather problems over the past few years are taking a toll on farm families and their ability to make ends meet."

Low grain and hog prices and continually rising input costs are threatening the agriculture industry. The Minister has committed to a complete review of Alberta's crop insurance programs and to host a provincial agriculture summit early in the new year.

In total, 24 municipalities in the Northeastern and Peace River regions of the province have been identified as drought areas. Of the 5.4 million acres of cropland in these areas, 3.7 million are experiencing drought-related stress. Of the 5.9 million acres of hay and pasture land, 4.1 million are experiencing drought-related stress.

The disaster relief package will have the following components:

- **Alberta Farm Income Disaster Loan Program** – It will assist farmers who have suffered severe income loss in at least two of the past three years due to reduced revenues beyond the control of management and that jeopardize the viability of the farm. The interest rate will be five percent amortized over 12 years. Interest and principle will be deferred for the first two years. The maximum loan amounts will be $100,000 per person or $300,000 for three or more individuals working together.
- **Farm Income Disaster Program (FIDP)** – Expanding the Reference Period. FIDP support has been based on 70 percent of the previous three-year average farm margin Multiple-year disasters have left many producers with little margin over those three years. Effective for the 1998 farming year, the program is being enhanced to determine program support level based on three of the last five years. This will more effectively protect farmers against long-term, progressive declines in farm income

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- **FIDP – Zeroing Negative Margins in the Reference Years** – Effective for the 1998 farming year, negative margins that occur in the reference period will be averaged as a zero margin year instead of a negative margin. Producers raised concern that one or two negative margin years completely eliminate any positive average margin, thus disqualifying the producer from FIDP assistance
- **FIDP – Deduction of Government NISA contributions from FIDP Payment** – Currently, all government contributions to a producer's Net Income Stabilization Account (NISA) back to 1995 are deducted from FIDP payments. Effective for the 1998 farming year, only the government contributions in the claim year will be deducted
- **FIDP – Expanding Farm Provisions** – Producers have raised concerns that expansion of their operation has deemed them ineligible for FIDP when they would otherwise have qualified. Effective for the 1998 farming year, expanding farmers will be covered through adjusted data. The program will also explore enhanced accrual accounting filing options

"The combination of changes we are making today will not only provide targeted disaster assistance to drought-affected areas, but to producers in other parts of the province who have experienced significant drops in their farm income as well," Lund says. "Changes to FIDP will make the program more responsive and offer increase support in future years."

Complete program details will be available at regional offices of the Alberta Agriculture Financial Services Corporation (AFSC) in the coming weeks. For more information on these initiatives, producers can call AFSC toll-free at 1-800-851-5070.

Further information on Alberta Agriculture Income Disaster Initiatives can be viewed on-line at **<http://www.gov.ab.ca/acn/199910/8271.html>**.

Contact:	*Michael Lohner*	*Ken Moholitny*
	(780) 427-2137	*(780) 427-3078*

Government will continue to fight for Alberta cattle producers

The Alberta government is unhappy with the final anti-dumping ruling by the United States Department of Commerce in its investigation of Canadian cattle imports.

In an October 13 decision, the Department of Commerce upheld a preliminary ruling that certain Canadian exporters were selling cattle into U.S. markets at less than fair value. As a result, a provisional anti-dumping duty averaging 5.63 percent of the value of each animal exported will be imposed on shipments of live cattle (excluding breeding cattle) to the U.S.

"Alberta is very disappointed with this ruling," says Ty Lund, Minister of Agriculture, Food and Rural Development. "Any suggestion that Canadian cattle were responsible for low prices in the U.S. is unfounded. The North American cattle industry is a single, fully integrated market. The Canadian cattle industry is competing fairly and not dumping product into the U.S. market."

The anti-dumping decision stems from trade investigations launched last December, in response to two petitions filed by the Ranchers-Cattlemen Action Legal Foundation (R-CALF), a coalition of U.S. ranchers. R-CALF alleged two things: Canadian cattle producers were dumping cattle into the U.S. market, and Canadian cattle producers were unfairly subsidized.

While the Department of Commerce ruled that Canadian cattle producers were selling cattle into U.S. markets at less than fair value, it dismissed the claim that Canadian cattle producers were unfairly subsidized, thus bringing an end to the countervailing investigation.

The anti-dumping case will now proceed to the U.S. International Trade Commission (ITC) for a final injury determination. If the ITC finds that imports from Canada have injured or threatened to injure the U.S. industry, final anti-dumping duties will be imposed on Canadian cattle imports. The final injury determination is expected late November.

"This case is not over yet. We will continue to work closely with the cattle industry, other provinces and the federal government as this investigation proceeds to the final phase," says Lund. "We are confident that the evidence will clearly show the U.S. industry has not been injured by imports from Canada."

"This ruling is particularly disappointing, as it comes at a time when Canada and the United States are working hard to facilitate, not block, two-way trade," says Shirley McClellan, Minister of International and Intergovernmental Relations. "The anti-dumping ruling is a setback to Canada-U.S. trade relations.

"Canada has access to the dispute resolution mechanisms of the North American Free Trade Agreement and the World Trade Organization. If the final outcome of this case is not in our favour, we expect they will be used."

Further information on the October 13, 1999 anti-dumping ruling by the United States Department of Commerce can be viewed on-line at
<http://www.gov.ab.ca/acn/199910/8264.html>

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Forcing bulbs

Forcing bulbs can bring the color and fragrance of spring into the house from Christmas straight through until spring actually arrives. Forcing means stimulating a plant to blossom out of season. Crocus, hyacinth, paper whites and tulips are the most commonly forced bulbs.

"Bulbs can be forced in any type of container," says Shelley Barkley, information officer with Alberta Agriculture, Food and Rural Development's Crop Diversification Centre South, Brooks. "Containers can be quite shallow as bulb roots are not long. The only limiting factor of the container is that it be large enough so that the bulbs do not touch each other or the sides of the pot. Drainage holes are not a necessity if a drainage layer of pebbles with a sprinkling of charcoal is put in the bottom of the container before filling it with soil."

Begin the forcing process by wetting the potting soil – it should cling together when squeezed without oozing water. Fill half the container with soil, place the bulbs, pointy side up, close but not touching, on the soil. Add more soil until the bulbs are completely covered. Hyacinths and narcissus, are the exceptions to this rule, as they like to have their necks sticking out of the soil. Firm the soil around the bulbs and water thoroughly."

"Once planting has been finished, cover the container top with aluminum foil, or slide the container into a black plastic bag," continues Barkley. "Put it in a cool location, temperatures of 5 to 10°C, either in the fridge or cold room. Check the pots for moisture occasionally during this cold treatment.

"Once shoots are sticking up 2.5 cm, move the containers into a cool spot that maintains temperatures of about 10 to 15 degrees C and also has some indirect light. This is an important transition step as moving the container of bulbs to a warm, sunny spot causes the flowers to develop too fast and the display will be poor. Once the flower buds show color, the container can be moved into a warm spot with direct light. It is important to note that intense light shortens the life of the blossom."

Paper whites, hyacinths or crocus can be grown in pebbles. The process is the same, but pebbles with charcoal bits replace the soil. Bulb rot can be a problem, with this method so keep one centimetre of air between the bulb and the water.

"Forcing bulbs brings color splashes to shorten the dreary days of winter," says Barkley.

Contact: *Shelley Barkley*
(403) 362-1305

Growing Together at the Hort Congress

Information on how to grow and market all things horticulture, from berries to vegetables, can be found in more than 60 sessions at the ***1999 Alberta Horticultural Congress*** being held in Edmonton on November 11 to 13, 1999.

"For anyone interested in a horticultural business, this is one of the best places to gather information," says Shirley Alton, Congress coordinator, Edmonton. "You'll hear from and talk to experienced researchers and growers from Canada and the US. The wide range of topics will have something for the budding arborist, greenhouse grower, market garden operator, fruit grower and nursery grower as well as flower and herb grower."

Greenhouse growers can benefit from sessions dealing with insect management, Hazard Analysis Critical Control Point (HACCP), greenhouse structures, vegetable production, retailing, labour management and a research update.

"Market gardeners can take in a variety of production and marketing sessions including growing a better carrot, profiting from fun on the farm, co-operative marketing, accessing the tourism market, and fresh fruit and vegetable precooling," adds Alton. "Fruit growers will learn about growing and marketing black currants and rhubarb, cooling and freezing systems, fruit processing alternatives and a berry crop research update."

Anyone interested in newer crops can take in sessions on ethical wildcrafting, echinacea, native plants, medicinal herbs and adding value to herbal products. The keynote speaker, Dr. Tim Ball will discuss *Impacts of Climate Change on Sustainable Agriculture* in his opening address.

"In addition to the educational seminars, the Prairie West Trade Show, a trade show open to professional growers only, runs for the first two days of the congress," says Alton. "Exhibitors include horticultural suppliers, equipment dealers, growers and wholesalers."

The complete congress agenda and registration form is available by calling Alton in Edmonton at (780) 415-2324.

Contact: *Shirley Alton*
(780) 415-2324

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Swine technology workshop

The first swine technology workshop, Surviving Tough Times: Strategies for Survival, is being sponsored by Alberta Pork and Alberta Agriculture, Food and Rural Development on November 3 and 4, 1999 at the Capri Centre, Red Deer. The workshop features: a breeding herd workshop; presentations of the results of a feed intake and growth rate study; presentations on where the industry is going and what producers need to do to survive; discussions on strategies for survival with emphasis on feed costs, capacity use and production efficiency; and a presentation on breeding herd feeding and management. As well as the educational and information presentations, there will be 25 booths with displays from many important pork industry service companies. Cost of the workshop is $50 per day or $75 for both days. For further information or registration, contact Frank Aherne (780) 436-0181 or Jim Gowans (403) 346-2554.

Agricultural export session

The Yellowhead East Business Development Corportation will be holding a Agricultural Export Session in Barrhead at the Business & Education Link on October 29, 1999 from 9:00 a.m. to 4:30 pm. The session includes a presentation by Anastasia Lim from Western Economic Diversification (WED), Alberta Agriculture and Ag Canada and provides a question and answer opportunity with St. Dennis Seed Farms, Westglen Milling and Champion Feed Ltd. Session cost is $45 including a lunch. More information, contact Shelly Ann Dodgson at (780) 785-2900 or e-mail <**sadodgson@yebdc.ab.ca**>.

Potato specialist in Taber

Clive Schaupmeyer, potato specialist with Alberta Agriculture, Food and Rural Development, has moved to the Alberta Agriculture Taber office. Schaupmeyer formerly worked as a research and extension agronomist at the Crop Diversification Centre South in Brooks. Alberta producers wishing to contact Schaupmeyer an contact him at (403) 223-7903, cellphone number is (403) 382-1853.

Agri-News

November 1, 1999

4-H CAN make a difference

For more than 80 years, Alberta's 4-H program has worked to meet the challenges of our agriculture and food industry. This year, National 4-H Week is being celebrated from November 1 to 7, 1999.

"The recent Measures of Success study looked at the impact of the 4-H program in Canada," says Carol Sullivan, provincial 4-H media & marketing specialist with Alberta Agriculture, Food and Rural Development. "It proved what industry leaders have known for years: 4-H gives youth the edge to compete in today's world. The study showed that 4-H alumni are better educated, more often employed and much more often employed in the agriculture and food industry. They report substantially higher incomes than the national average for Canadians and are also more involved in community organizations."

4-H projects and personal development programs give youth the opportunity to learn about conservation, the environment, technology, life skills and livestock. Add leadership, communication and boardroom skills to the mix and 4-H'ers have what employers are seeking.

"Together with their volunteer leaders, 4-H members, nine to 20 years old, pursue the 4-H motto *Learn To Do By Doing* as they participate in challenging and fun club activities and 4-H projects," adds Sullivan. "Alberta Treasury Branches will be showcasing the work of Alberta 4-H'ers with local 4-H Club displays."

During National 4-H Week, Alberta 4-H'ers will be demonstrating that ***4-H CAN Make a Difference***. At Farmfair International '99, being held at Northlands Park in Edmonton, 4-H members will accept donations to the Food Bank Network Association. In return for their donations, visitors to Farmfair International will receive an Alberta Made food coupon, sample or recipe. The food donations will be distributed to Food Banks across Alberta.

Wherever they live, on a farm or acreage, in a town or the city, Alberta's youth belong in 4-H. Alberta's 4-H program has something for everyone including projects in conservation, computers, livestock, veterinary science, photography, crafts, Business Cent$- the entrepreneurial project and much more. New for next year are the bison and exchange projects. Now that's something to celebrate!

To join 4-H call (780) 422-4H4H or visit the 4-H web site at <**http://www.agric.gov.ab.ca/4h**>.

Contact: *Carol Sullivan*
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Alberta
AGRICULTURE, FOOD AND RURAL DEVELOPMENT

Ergot – what is it?

Ergot is a fungal disease that most often affects rye and triticale, but may also affect barley and wheat. Oats are the least susceptible cereal grain. Many wild and cultivated grasses may also become infected with ergot.

"Ergot is of concern to pork producers because the feeding of contaminated grain can lead to significant production losses," says Fred Schuld, pork programs coordinator with Alberta Agriculture, Food and Rural Development, Edmonton. "An article written by J.F. Patience, D.R. Cooper, D.L. Whittington amd R.T. Zijlstra, of the Prairie Swine Centre Inc. (PSC), Saskatoon, SK. provided excellent information on ergot infection, its life cycle, the toxins present, clinical symptoms to watch for in livestock, medicinal uses, detection, possible uses of ergot-infected grain and agronomic control for this fungal disease. Information from this article is offered here with their permission."

Infection and Life Cycle – Fungi of the genus *Claviceps* are responsible for ergot infection. The most common and most damaging species is *Claviceps purpurea*. The mycelium of the fungus attacks the ovaries of the infected plant, resulting in the formation of sclerotia or ergot bodies in place of grain kernels. These ergot bodies are dark in colour, have a rough surface and may be as much as four times as large as the grain kernels they replace. The ideal conditions for ergot contamination is a wet, cool spring. These conditions extend the flowering period, the stage when the plant is most susceptible to infestation.

Ergot sclerotia survive in and on the soil over winter. In the spring, the sclerotia germinate, producing spores that become airborne and infect grasses and certain crops. Grasses may act as a reservoir for ergot. However, sclerotia apparently do not remain viable more than one year. Thus, certain agronomic practices may help to control ergot infection.

Toxins – The ergot bodies contain ergot alkaloids and amines which, when consumed in sufficient quantity, cause health problems in both animals and people. The amines and alkaloids that are found in ergot produce clinical signs that are generally the result of vasoconstriction and psychoactive activity. Ergot alkaloids cause a constriction of smooth muscle fibres and the walls of small blood vessels. This explains why ingestion of toxic quantities of ergot cause lameness and may ultimately result in sloughing of hooves as well as the tips of tails and ears.

Clinical Symptoms – Animals can be affected either by feeding of low quantities of ergot for long periods of time, or by feeding higher levels for a shorter period of time. Clinical symptoms include reduced feed intake, convulsions, lack of coordination, respiratory distress, rapid pulse, salivation, vomiting, diarrhoea, tremors, abdominal cramps, physical and mental depression, pupils first contracted but later dilated, numbness and coldness of extremities. In severe cases, gangrene may occur. Because ergot toxicity impairs blood flow to the extremities, the breeding herd is particularly affected. Pregnant sows may abort spontaneously, and nursing sows may dry up, seemingly overnight. Even if sows do not dry up completely, their litters often decline in vigour and growth, as milk production is impaired.

When ergot toxicity has been diagnosed, and the source of infection removed, neurological symptoms may be reversed. Unfortunately, recovery from damage due to blood vessel constriction is less likely. This is particularly true if gangrene is observed.

Ergotism in humans is sometimes called St. Anthony's Fire, presumably due to the burning sensation that occurs in the extremities. It was not uncommon among humans in the Middle Ages, when contamination of rye flour led to thousands of deaths. Ergotism in humans now is almost an historical anecdote, due to stringent controls in our food delivery system.

Medicinal Uses – While ergot alkaloids are better known for their toxicity, they also have pharmaceutical properties. For example, ergotamine tartrate is used in the treatment of migraines. LSD, the drug made famous in the 1960's, is chemically related to one of the ergot alkaloids.

Detection – It is extremely important for grain to be visually inspected for ergot at the time of combining or delivery to the feed mill. Prior to grinding, the sclerotia are readily visible, and the degree of infestation determined. However, once the grain is ground, the only option is laboratory analysis for the ergotoxins.

The level of ergot infection is relatively easy to determine in raw grain. A 500 gram grain sample is weighed, the ergot sclerotia are then removed and weighed separately and finally, the portion of the sample that is ergot is calculated as a percent of the total sample weight. In the absence of scales, the number of sclerotia in a 1000 kernel sample can be counted as an estimate of ergot levels. For official grading of grains, dockage is removed prior to weighing. If the grain is to be fed with dockage included, then dockage should be included in the estimate of ergot content.

In Canada, the Canadian Grains Commission has developed a grading system that includes standards for ergot. To be graded No. 1, most varieties of wheat can have no more than 0.01 per cent ergot bodies and to be graded as No. 2, the maximum level changes to 0.02 per cent. Hulless barley is graded as Select CW/CE two-row and six-row if there are less than three kernels ergot bodies per 500 gram grain sample. Grains with more than 0.04 per cent and less than 0.10 per cent ergot bodies are classified as feed grade. Because other factors affect grain grades, a sample may be classified as 'feed' and have no ergot present.

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Use of Ergot-Infected Grain – There has been very little recent research conducted on the impact of ergot on pig performance and health. The most common recommendation is to avoid ergot altogether in feeds destined for use in the breeding herd, and to limit the concentration of ergot in diets for growing pigs to 0.1 per cent , or approximately one kernel per 1000.

If ergot infected grain must be used, it should be diluted with clean grains or other ingredients to bring the total content in the diet to less than 0.1 per cent. Thus, if a contaminated grain contains 0.3 per cent ergot, it could make up one-third of the total diet and still fall within the 0.1 per cent tolerance. Even diluted grains should not be fed to the breeding herd.

Gravimetric grain cleaning systems are able to remove ergot, at least to some extent. Other methods of detoxification of grains would be highly desirable. However, there is no reliable evidence of the existence of products that bind or otherwise render ergot toxins inactive in livestock feeds.

Agronomic Control - Ergot control is aided by crop rotation. If the rotation cycle can include a non-cereal or non-grass, the number of infectious spores will be reduced when cereal grains are planted in subsequent years.

Deep tillage is also beneficial. Burying sclerotia more than two inches deep prevents the formation of infectious perithecia and reduces the spread of spores.

Clean seed must be used to prevent direct contamination of the new crop. Also, mowing of grass in pastures and roadsides before flowering may be beneficial as it helps to break the life cycle of the ergot fungi.

"To review the full article, complete with photos, go to the PSC web site at: <**http://adminsrv.usask.ca/Psci/**>," adds Schuld.

Contact: *Fred Schuld*
(780) 427-4592

Establish a successful forage stand

Seeding technique is the most critical factor in successful forage establishment; timing is also important.

"Forages need to be seeded when moisture and weather conditions are favorable for quick germination and good establishment," says Ross Hutchison, forage specialist with Alberta Agriculture, Food and Rural Development, Wainwright. "In general, there are three times a year when conditions are favorable, late fall, spring and early fall."

Late fall seeding – October 15 until freeze up is the time frame for late seeding (dormant seeding). Generally, no germination will occur until the following spring. Although this may be an advantage in wet areas, or in areas where spring moisture can be limiting, this process produces variable results. Grass crops are the most successful, alfalfa results are quite variable and sweet clover will not work under this regime. In general, this dormant seeding is the highest risk of the three options

Spring seeding – this is the time when seeding is most likely to be successful. Soil moisture conditions are generally good, with 15 to 30 centimetres of moist soil considered adequate for establishment. For the brown and dark brown soil zones, this is in early-April until late-May. In the black and grey-wooded soil zones, seeding can be successfully completed as late as mid- to late-June. Early seeding is usually best, but consideration must be given to field conditions and weed control.

Early fall seeding – in some years there may be a 'window of opportunity' to seed forage crops in the early fall, such as happened this year in 1999. Growing conditions must be correct for quick establishment because the plants need to be mature enough to make it through the winter. For grass, this is the three- to four-leaf stage and for alfalfa it's the fourth trifoliate leaf stage. Seedling legumes are more susceptible to winter damage than grasses, so seeding in the northeast must be done with at least four weeks of growing weather remaining in the season; unless you are going to try late fall seeding.

"Remember to follow the basic rules of seeding shallow into a firm, moist, weed-free seedbed," says Hutchison. "This creates the best environment for a forage stand."

Contact: *Ross Hutchison*
(780) 842-7540

Take precautions to avoid Hantavirus infection

Albertans need to be aware of Hantavirus, and take basic precautions to avoid infection. Alberta Health stresses that the incidence of the disease and the risk it poses to the public is low. However, Albertans are asked to remember how to keep risk to a minimum.

"The only confirmed carrier of the Hantavirus is the deer mouse," says John Bourne, pest prevention and management specialist with Alberta Agriculture, Food and Rural Development, Vermilion. "It is possible that other rodents carry the virus and, as it is not always easy to determine what kind of mouse one is exposed to, particularly when the only evidence is droppings, all rodents should be treated as potential carriers. The deer, or white footed mouse, is an average sized mouse with large eyes and ears and is reddish-brown on the sides and back, the underside and feet are white or cream coloured. Its tail is also bi-coloured; dark grey or brown above and whitish underneath."

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The virus does not appear to have any effect on mice that carry it. The virus is shed in faeces, urine and saliva of infected mice. In this way, risk is restricted to people directly handling mice or cleaning up contaminated areas. The virus can survive in dust or on bedding materials and aerosol transmission can occur when contaminated dust is breathed into the lungs.

"Trapping or handling of live white footed or deer mice is not recommended," adds Bourne. "Children should be discouraged from capturing deer mice or using them in science projects. Dead mice can be handled safely with basic precautions: examine animals in a well ventilated area (outside), wear gloves, use a face mask, disinfect traps and equipment."

Hantavirus does not appear to cause any illness in pets and is not passed from pets to people, or from one person to another. Even if they are exposed to the virus, dogs and cats do not pass the infection on to their owners.

The most effective precaution against infection is to keep rodents out of homes and work areas, and immediately trap any that get in. When disposing of rodents or droppings, disturb them as little as possible. Soak them with disinfectant, then place them in a sealed bag and bury them, or put them out for removal in garbage cans with tight-fitting lids. Wear rubber gloves, and rinse the gloves in disinfectant (such as laundry bleach) before removing them when finished. Do not use a vacuum cleaner to remove droppings in an enclosed space.

Even where its incidence among mice is highest, Hantavirus infects only a tiny proportion of people who come in contact with it. However, in the few people who develop the infection, it can be fatal in one-third to one-half the cases, if left untreated. There is no specific cure; however, treatment in an Intensive Care Unit greatly reduces the risk of death.

Testing has been done in many areas of Alberta. Overall, about 10 per cent of mice have tested positive, but this ranges in samples taken from any one area from zero to almost 50 per cent. There have been human cases from the areas not yet tested, so the virus is there, too. This confirms Alberta Health's belief that there are small numbers of infected mice in all regions of Alberta.

If a person is infected, the disease generally appears within one or two weeks, but can take up to six weeks to appear. Initially symptoms resemble the flu, including a fever of 101 to 104 degrees (F), body aches, chills, but if Hantavirus is involved this can progress to troubled breathing. Persons with flu-like symptoms do not need to be concerned, but anyone who develops difficulty breathing and has recently been in an area contaminated by rodents should see a doctor immediately. Information is available from all regional public health services.

Hantavirus is not a new risk to public health, and there is no evidence that it is increasing or spreading. All that is new is the ability to recognize it – and deal with it more effectively through early diagnosis and treatment. The virus has existed in North America for many years, but was only recognized for the first time in May of 1993, in New Mexico.

Since the infection was first diagnosed, research into medical records and blood samples has uncovered about 150 cases in North America, dating back to the 1950s. Eight of these cases occurred in Alberta and seven have been reported in B.C. including one fatality. Cases are generally concentrated among people who work at exceptionally close quarters with mice, such as researchers and people who keep mice as pets. Most cases occur in rural areas.

For more information, consult your family physician or the local Public Health Office.

Contact: *John Bourne*
(780)853-8225

Fall issue of Right Now!

The fall issue of the ***Right Now!*** magazine will be arriving in rural postal boxes around the middle of October. The theme for the feature articles is *Value chains – what are they and how they are created*. The winners of the Right Now Leadership awards are profiled and there is an insert to launch the renewal of the Canada-Alberta Farm Business Management Program (FBMP).

"The Leadership Award Program was launched in the spring issue of ***Right Now!***," says Anita Lunden, FBMP provincial coordinator, with Alberta Agriculture, Food and Rural Development, Olds. "There are winners in three categories. The Community Leadership Award went to Debbie Hagman of Mayerthorpe; the Marketing Leadership Award went to Carolyn Brocca of Sterling; and, the Education and Training Leadership Award went to Gordon Williams of Cardston. This is the first time the leadership awards have been presented, and FBMP hopes to make them an annual event. Through our involvement in rural communities we knew there were lots of unsung heroes making huge contributions to the industry in a variety of ways and we wanted to recognize them. We also wanted to draw attention to the importance of developing new leaders."

Leadership awards were presented at the luncheon hosted by the Agriculture and Food Council (AFC) in Calgary on October 15th. Winners received a plaque and were guests of the Farm Business Management Program at the Harvest Gala.

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"Readers will also find the value chain articles informative," adds Lunden. "A value chain is defined as three or more independent businesses working collaboratively to compete successfully in the market place. Stories provide examples of value chains in the beef, pork and poultry areas. They also provide information on the value chain project initiated by the AFC."

"The Council provides education and increases awareness of the benefits of value chains, provides management and operation skills training to chain managers, and facilitates seed funding for worthwhile value chain pilot projects," says Jerry Stepnisky, AFC general manager.

The FBMP insert outlines the priorities for the new program and explains how individuals and groups can become involved in the Program. There is also a call for nominations for new members on the Industry Advisory Council.

This is the fourth issue of ***Right Now!*** Anyone with a rural postal box receives the publication free of charge. Copies are available at Alberta Agriculture district offices or can be obtained by calling the Agriculture Business Management Branch of Alberta Agriculture at (403) 556 4240.

Contact: *Anita Lunden*
(403) 556-4278

Agri-News Briefs

Y2K Alberta readiness

The Year 2000 rollover happens in two short months. Members of Y2K Alberta, a working group of over 60 organizations responsible for providing essential services in the province, have said that Alberta's readiness status is high regarding Y2K issues. A recent update from Y2K Alberta shows that no widespread or extended disruptions in essential services across the province are expected. "The cooperation and sharing of information among essential service providers that has gone on under the Y2K Alberta umbrella is just tremendous," says Ron Wolsey, executive director of Alberta Disaster Services. An in-depth information insert was included in recent issues of both the Edmonton Journal and the Calgary Herald. This information about the readiness activities and status of Alberta's essential services is being made available to Albertans at local bank branches as of November 10. Additional information about Y2K Alberta, its members and provincial essential service Y2K readiness status is available on-line at <**www.y2kalberta.org**> or by calling 415-0910. Alberta government numbers are toll free by dialling 310-0000 first.

What's cooking on the web?

Albertans looking for new recipes and neat ideas can check out <**www.myrecipes.org**> for some new and great recipes. Dairy farmers of Canada has reorganized their recipe section to make it even more user-friendly. Recipes can be searched by listing a few ingredients you have on hand. The site will find dinner recipes for those ingredients in just seconds. A feature that lets you store your favorite recipes in an on-line cookbook is also part of the new web design.

Banff Pork Seminar

Beyond 2000 – Challenges & Opportunities is the theme of the January 18 to 21, 2000 Banff Pork Seminar at the Banff Centre. The seminar features speakers of international calibre who are recognized authorities in their field. Information will be provided on how to survive in the short term and thrive over the long term in the new century. Session topics include: Who will be the competition in the new century?; Will antibiotics be used in the new century?; Optimizing genetics in the new century; Price discovery and industry integration in the new century; and, Fears, misinformation, reality and human health. Early registration is $180 (GST included) per person. Payment must be received on or before December 17. After December 17, registration fee is $230. For more information, contact Banff Pork Seminar Conference coordinator, Ruth Ball at (780) 492-3236 or e-mail <**bps@afns.ualberta.ca**>.

Strawberry plants for 2000

The Alberta Market Gardeners Association (AMGA) will once again be bulk ordering strawberry plants for members. More information and order forms will be available at the AMGA booth at the Prairie West Horticulture Trade Show, part of the Hort Congress in Edmonton on November 11 and 12, 1999, or by contacting the local AMGA office.

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Agri-News

November 8, 1999

AGC urges implementation of Kroeger recommendations

The Alberta Grain Commission (AGC) strongly believes that the Kroeger recommendations for changes to Canada's grain handling and transportation system are a win for farmers, and urges government and industry to move on with implementing the recommendations.

The AGC also believes the proposals would bring shipping costs down by at least $112 million from the 1998 level, with more to follow through competitive forces.

"Historical rights, equitable distribution and turf protection must go. Farmers have made dramatic changes in the crops they grow and in the way they manage their land in response to changing market forces," says Gene Dextrase, AGC member from High Level. "They've had no choice. It is time for the agencies and vast infrastructure around us to respond to market forces too. That is the only way to gain efficiency."

Throughout the Grain Handling and Transportation System Review, the AGC advocated for changes to the current grain handling and transportation system are needed to lower costs for farmers and improve customer service for all grain and oilseed products. The federal government's agreement with Justice Willard Estey's vision was a significant turning point in the process. The AGC also applauded giving Arthur Kroeger the role of facilitator of the implementation process with a clear mandate to recommend ways to resolve outstanding implementation issues if no consensus was reached.

The AGC agrees that if stakeholder and Kroeger recommendations are adopted, farmers can expect to see lower costs through the marketplace. The western grain handling and transportation system can also be made more efficient, accountable and beneficial to farmers through a move to a more commercially-oriented environment with appropriate safeguards to protect the public interest."This approach will mean a fundamental change to the Canadian grain handling and transportation system," says Ken Motiuk, AGC Member from Mundare. "The Canadian Wheat Board will still be the export and human consumption wheat and barley marketer, without a direct role in transportation. That makes sense since their overall role in the prairie grain economy is declining as farmers choose to grow different crops. An effective marketer does not need to control all aspects of the marketing channel. It doesn't happen for canola, oats, domestic feed barley or peas, and we don't need it for export wheat and barley."

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The AGC also believes that the risk of exorbitant rates being charged by railways is mitigated by the safeguard of the revenue cap and that's not all. Stakeholders and Kroeger put forward recommendations to increase competitive forces. Members of the AGC are confident that a commercial, contractual system as outlined by Justice Estey and Arthur Kroeger is the best way of controlling costs.

The AGC also applauded the Alberta government for its provincial position regarding Kroeger's recommendations. The western provincial government coalition has not resulted in a western provincial consensus. The Alberta government is showing strong leadership by supporting a move towards an efficient, competitive and commercial handling and transportation system.

The Alberta Grain Commission is made up of six farmers from around the province and three representatives from the Ministry of Agriculture, Food and Rural Development. The mandate of the AGC is to review any and all matters relating to the grain and oilseeds sectors, make recommendations to the Minister of Agriculture, Food and Rural Development and to conduct appropriate activities that promote the on-going growth and development of the grains industry.

Contact: *Ken Moholitny, Chairman*
Alberta Grain Commission
(780) 427-3078

Brenda Brindle, Grain Industry Analyst
Alberta Grain Commission
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For toll-free dialing, call 310-0000

Reducing wind erosion on low residue cropland

Soil conservation is becoming a growing concern for producers of potatoes, beans and sugar beets. More of these three low-residue crops are being grown in Alberta and that leaves soil vulnerable to erosion.

"Soil conservation is important for clean air, clean water, soil productivity and agricultural sustainability," says Conny Tomas, regional conservation coordinator with Alberta Agriculture, Food and Rural Development, Lethbridge. "Aside from dust particles, pesticides and herbicide residues have been found in studies on air borne particles. Water quality is affected if soil blows into surface waters. Herbicides and insecticides carried on dust particles can also impact aquatic life. Loss of organic matter affects the productivity and water holding capacity of soils, making the soil even more erosion prone."

Wind erosion can also reduce visibility on roadways, adding a human safety factor to the equation. Future generations depend on how the soil is farmed and conserved today and under the Soil Conservation Act, landholders are responsible to take measures to prevent soil loss and/or stop loss or deterioration.

"Low residue cropland producers do have management tools at their disposal to help fight soil erosion," says Tomas. "Some beneficial management practices for soil conservation include the following tips."

- reduced tillage so protective crop residue is left on the soil surface
- cover crops can be planted, such as fall rye, winter triticale, oats and barley. Other cover crops used in the U.S. include hairy vetch and clovers
- shelterbelts
- strip cropping of alternate crops such as potatoes, beans and beets with those less prone to erosion
- annual barriers of silage corn or sunflowers to create wind barriers
- tillage practices of seeding perpendicular to the prevailing wind and/or increase the roughness of soil surface
- manure and compost applications that add organic matter help bind soil particles together

"Prevention is better than cure, however, if soil is blowing, a couple of emergency fixes that can be used are: rows of straw bales; incorporate straw; and ridge soil and bring up large clods," concludes Tomas.

Contact: *Conny Tomas*
(403) 381-5117

Preventing rodent damage to trees

Young bark offers a tasty alternative to mice when winter's snow covers their usual fare of seeds. Rabbits prefer to eat young twigs, but they also strip the bark off trees and shrubs. Even porcupines will damage the trees in the yard by feeding on the bark.

"Prevention is the only way to protect trees and shrubs. If using tree guards, they should be installed in the fall and removed in the spring," says Shelley Barkley, information officer with Alberta Agriculture, Food and Rural Development's Crop Diversification Centre South, Brooks. "Materials like aluminum foil, 1.25 cm mesh hardware cloth, PVC pipe or one-inch chicken wire can be used for tree guards. Cut PVC pipe along one side and then place it around the tree trunk. Circle trunks with hardware cloth or chicken wire and fasten the ends together securely. Wrapping tree trunks with aluminum foil is a good rodent deterrent and it can also help prevent sun scald."

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Since mice usually eat below the snow line, tree guards need to extend 5 cm below the soil line for effective mouse control. Rabbit guards need to extend 0.6 to 0.7 metres above the snow line to be effective. Chicken wire is effective against the damage rabbits can inflict, but doesn't deter mice. Tree guards are commercially available as well.

"Keep tree wells free of grass," adds Barkley. "Mice usually won't cross an open area to feed, so keep an area of about one metre clear around trees and shrubs. Try to remove as much alternate food from the surrounding ground as possible, including crabapples, berries and bird seed. And, pull mulch away from the base of young trees for the winter."

Mulch perennial beds after the ground has froze. Mice are not able to dig in frozen ground to feed on the plants. Keep an eye out for signs of mice around the yard and, if necessary, put out traps.

"Repellents like Rabbit Repel or Rodent Repel contain the active ingredient thiram," explains Barkley. "This stuff tastes bad, but won't harm animals. Thiram is effective for rabbits, mice or deer and may be painted or sprayed on tree trunks. Natural soaps that contain ammonium salts of higher fatty acids have an unpleasant odour that repels most animals. The odour from these soaps discourages feeding without harming the animals."

Contact: Shelley Barkley
(403) 362-1305

Sclerotinia blight of Echinacea

Based on disease surveys in 1997 and 1998, researchers found that sclerotinia blight is the second most important disease on echinacea next to aster yellows in Alberta. The disease is caused by *Sclerotinia sclerotiorum,* a pathogenic fungus that can infect many commercial crops, is widespread globally, and may cause severe damage and crop losses. The major susceptible crops grown in Alberta include bean, canola, chickpea, lentil and pea. The three species of *Echinacea* (*angustifolia*, *pallida* and *purpurea*) grown in Alberta are all susceptible to this disease. One or two stems may start to wilt, then adjacent tillers begin to show similar symptoms. Whole plants may suddenly develop acute wilting symptoms and collapse. White mycelium appears on the basal and aerial stems of infected plants under cool, wet conditions.

"After the plant dies, the fungus produces sclerotia on and inside dead tissues under moist conditions," says Kan-Fa Chang, Alberta Agriculture, Food and Rural Development's Crop Diversification Centre South, Brooks. "These irregular shaped structures are hard, black and range in size from a pinhead to the diameter of the stem. They help the fungus survive winter and adverse environmental conditions. Sclerotia either germinate and infect plants directly or produce tiny mushrooms, that disperse tiny ascospores by air currents Spores that land on the aboveground portion of plants may cause infection under suitable conditions."

Currently, Chang and his colleagues are working on control of sclerotinia blight through integrated chemical and biological approaches. The project is being supported by Alberta Agriculture Research Initiative (AARI) for a three-year term No fungicides have been registered for controlling this disease on echinacea, although Benlate, Ronilan and Rovral are registered on canola and bean crops.

An eight-page **Agri-Facts** factsheet (Agdex 630-2) ***Diseases of Echinacea on the Canadian Prairies*** was recently published by Alberta Agriculture. Symptoms of six commonly encountered diseases of echinacea including sclerotinia blight were described and illustrated, and control measures were recommended. More than 1000 copies have been distributed to growers through various associations in the North America. Copies can be obtained free of charge from Alberta Agriculture district offices and from the Publication Office,
7000 - 113 Street, Edmonton, AB T6H 5T6.

Contact: Dr. Kan-Fa Chang
(403) 362-1334

Nitrogen and weeds

Crop response to nitrogen is usually measured under weed-free conditions. A recent study done by Dr. Bob Blackshaw of Agriculture Canada in Lethbridge took a different approach.

The study had three objectives:

- determine fertilizer timing and placement effects on weed competition and wheat yield
- compare fertilizer and manure as nitrogen sources for wheat
- compare fresh versus composted manure effects on weed populations and wheat yield

"As part of the study, nitrogen was applied at about 50 pounds per acre and manure at 30 tons per acre," says Gordon Frank, crop specialist with Alberta Agriculture, Food and Rural Development, Brooks. "Some wheat was kept weed-free as a check. Weed-free wheat yields were the best with banded nitrogen, followed by broadcast nitrogen, fresh manure and finally composted manure."

Weed growth increased with all nitrogen and manure treatments compared to unfertilized. Weed growth was greatest with broadcast nitrogen, followed by composted manure, fresh manure and banded nitrogen.

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"In this test, the extra weed growth with some treatments was not enough to alter the relative yield of wheat," adds Frank. "But, it does appear that placing nitrogen to the advantage of the crop and not the weeds could lead to benefits. This is only the first year of a three-year study, so further conclusions will doubtless be forthcoming in the next two years."

The study was done in cooperation with the Southern Applied Research Association (SARA).

Contact: *Gordon Frank*
(403) 362-1212

Snow fencing for dugouts

With the limited spring run-off experienced in Alberta in the last two years, farm managers are looking at ways to increase dugout water levels and secure a better water supply for agricultural use. Snow fencing is one method of increasing runoff into dugouts. It is possible to increase collection by 25 per cent by putting up a complete perimeter snow fence around the dugout.

"Snow fencing should be located perpendicular to the direction of the prevailing winds, even if the dugout is not," says Gary Makowecki, conservation technician with Prairie Farm Rehabilitation Association (PFRA), Vegreville. "The upwind 'fetch' of the dugout should be of sufficient length to fill the snow fence. The fetch is the length of the open field that the snow will drift across. The required fetch to fill a snow fence will vary from area to area, depending on the land use, snowfall and wind velocity."

If the fetch is under vegetative cover, there has to be sufficient snowfall to fill the vegetative cover before the wind is effective in transporting the snow. If the dugout is not located in an area of sufficient fetch, the snow fence should be located where the fetch distance is greater while still sloping toward the dugout. It is important to remember, however, that a large portion of the runoff from the snow drift melt can be lost to seepage if the drift is too great a distance from the dugout.

"A snow fence can be made of plastic or wooden material, it is the porosity of the fencing that affects the amount of snow trapped," adds Makowecki. "Snow fence with 50 per cent porosity is the most efficient in trapping blowing snow. A fence constructed of horizontal boards is 25 per cent more efficient than one constructed of vertical boards. A gap of 10 to 15 per cent of the total height between the ground and fence should be maintained."

The gap at the bottom of the snow fence reduced the tendency of fences becoming buried in the drift. Burial of the fence reduces the effective fence height and reduces storage capacity of the fence.

"The Parkland Conservation Farm, just east of Mundare, has plastic and wooden snow fence demonstrations set up and visitors are welcome to view the display," says Makowecki.

Shelterbelts can also act as a snow fence if designed properly. Tree rows should be planted so that snow collection is maximized and runoff water can be efficiently directed to the dugout. Plant deciduous trees at least 50 metres (150 feet) from the dugout since branches and leaves may contaminate the water and decrease its quality. Small-leaved shrubs or conifers can be planted as close as 20 metres (60 feet) from the dugout as small leaves and needles are less likely to be carried to the dugout by wind.

In shelterbelt design, topography and soil texture must also be considered to avoid gullying, especially on steep slopes. Trees should not be planted on land with a slope greater than 10 per cent unless adjacent land is in forage. Grassy waterways can also be used to reduce erosion and improve water quality.

Further information on snow fencing and shelterbelts, shelterbelt species, row spacing, maintenance and grassed waterways is available from Alberta Agriculture, Food and Rural Development district offices and local PFRA offices throughout Alberta.

Contact: *Gary Makowecki*
(780) 632-2919

Agri-News Briefs

Copper deficiency

A new Alberta Agriculture, Food and Rural Development **Agri-Facts** factsheet, ***Copper Deficiency: Diagnosis and Correction*** (Agdex 532-3) is now available. The factsheet includes information gleaned from several research projects on copper fertility done in the province. Research has identified copper deficiency in several soil zones and the extend of the deficiencies is estimated at three million acres. The factsheet discusses fertility management, soil test criteria, soil type characteristics, copper deficiency symptoms and recommended copper fertilizers. Agri-Facts factsheets are free and available at all Alberta Agriculture, Food and Rural Development district offices or from the Publications Office, 7000 - 113 Street, Edmonton, AB T6H 5T6.

Fenugreek

The 1998-99 Lethbridge Research Centre Annual Research Update reports that scientists have discovered that Fenugreek, new to Canada, has exciting potential as an alfalfa alternative. The high-protein legume grown in India and other countries makes good silage and is a natural source of valuable steroids that may increase muscle development. Like alfalfa, it is a high-quality legume that fixes nitrogen in the soil, but while alfalfa is a perennial, fenugreek is an annual crop. It has slightly less dry matter and protein, but is relatively equal in terms of nutritional quality for cattle and holds its quality after blooming, giving producers more flexibility for harvest. Preliminary experiments also suggest that fenugreek may be bloat-safe.

Herb and Spice

A new CD ROM, ***Herb and Spice Production and Planning Guide*** is now available from Alberta Agriculture, Food and Rural Development. The CD ROM looks at the herb and spice industry as a small-acreage diversification option. It features detailed information about the industry and includes video clips and photos. Information about the aromatic, medicinal and culinary varieties of herbs and spices that have shown potential for Alberta producers is included. The CD ROM also includes a business component that will help interested people determine whether or not herb and spice production is a viable option for their acreage or farm. Some marketing and business planning information is included that can help Albertans diversify into herb and spice production.

Minimum system required to run the CD ROM include: Windows 95/98; Pentium 133 PC; 4x CD ROM; 16 MB Ram; 50 mg free hard drive space; Soundblaster 16 or equivalent; 25 bit color; Quicktime 3.0 (provided with this CD ROM). Cost of the CD ROM is $25 (plus GST). It is available at the Publications Office, 7000 - 113 Street, Edmonton, AB T6H 5T6 or by calling 1-800-292-5697 (in Canada). Cheque, money order, Visa and MasterCard are accepted. For mail orders, please add $2 (plus GST) for shipping and handling.

Organic crop workshops

Improving skills as an organic producer and becoming more efficient are the main focus for the two workshops offered by the Organic Crop Improvement Association of Alberta #1 (OCIA) and Alberta Environmentally Sustainable Agriculture (AESA). The seminars are especially recommended for any organic producer wanting a refresher course and for new members who need more information on the certification process. Seminars are scheduled for:

- November 27, 1999 at the Dunvegan Inn, Fairview

  Topics: certification process, audit trail, record keeping, inspector requirements and soil health

  Speaker: Marina Buchan – Buchan and her husband operate and organic bison ranch in the Peace Country. She is an organic inspector and her presentation will be from the perspective of an inspector and how growers can improve on the record keeping requirements for organic certification. Marina has been inspecting since 1994.

- December 10 and 11, 1999 at the Westlock Inn in Westlock

  Topics: certification process, audit trail, record keeping, inspector requirements, soil health, and organic farming in W. Canada. The Friday night will be a general session on organic farming in western Canada.

  Speaker: Gary Smith – has been an organic inspector since 1990. He resides in Saskatchewan and is presently writing a manual on organic farming. He published "Synergy" an organic farm magazine. Smith also presents a course on organic farming for the Saskatchewan Institute of Applied Science and Technology.

Registration cost is $15 for members and $30 for non members. Cheques should be made payable to OCIA Alberta #1. Pre-registration is required. To registration contact Walter Walchuk (780) 434-4123, Edmonton. For more information contact Walchuk or Irene Mihailuk (780) 675-5478.

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November 15, 1999

Funding available for agriculture health and safety projects

The Federal Government is providing funds for the next four years in support of farm safety and rural health projects, through the Canadian Coalition for Agricultural Safety and Rural Health. The program is a continuance of the Canadian Agriculture Safety Program – CASP II.

"Farm women's organization, **Women of Unifarm,** as Lead Agency Coordinator for Alberta, is inviting proposals for funding," says Shirley Dyck, CASP-Alberta Lead Agency Coordinator. "This is year two of the CASP II program. The deadline for applications is December 17, 1999, so we are encouraging Albertans to call for an information package and application form soon."

Consideration for funding will be given to applicants developing projects relating to tractor rollovers and run overs and those related to power take-off and other machinery entanglements. However, proposals that address other specific local needs and differences in the province will also be considered. Projects that are consistent with the objective of lowering the incidence of agriculture related deaths and injuries will be funded. Proposals should be consistent with one of the following categories:

- Development of materials and promotional activities that will increase the level of awareness of the farm sector on agricultural health and safety issues;
- The design, development and evaluation of surveillance mechanisms that can monitor the incidents of agriculturally related deaths, injuries and health related issues;
- Farm health and safety preventative programs;
- Facilitation of the exchange of information on farm health and safety issues;
- Data gathering and analysis of information pertaining to rural health and safety issues; and,
- Identification, development and promotion of safety standards.

"Eligible applicants for CASP II include non-profit organizations and who may partner with corporations, cooperatives, universities, industry associations, federal, provincial and territorial governments, crown corporations and government agencies to fulfill their project's objectives," adds Dyck. "CASP funding is based on 50 per cent of the

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eligible project costs. Project coordinators should endeavour to acquire other matching actual dollars, as well as in-kind contributions."

Project proposals must be forwarded by December 17, 1999 to the CASP Alberta Lead Agency Coordinator – Women of Unifarm, Suite 220, 10403 - 172 Street, Edmonton, AB T5S 1K9. Please do not hesitate to call with any questions.

For applications or further information, contact Dyck at (780) 452-7605, fax (780) 452-3708, or e-mail <**sdyck@compusmart.ab.ca**>.

Contact: Shirley Dyck
(780) 452-7605

Dry conditions continue into October

"Alberta had below normal precipitation totals in October," says Peter Dzikowski, agricultural weather resource specialist with Alberta Agriculture, Food and Rural Development, Edmonton. "This created good conditions to help farmers complete their harvest, but the cool October temperatures and the shorter day length with the later harvest slowed crop drying in many regions."

The provincial average precipitation of 15.0 mm was 74 per cent of the 1961 to 1990 normal of 20.2 mm. Precipitation totals were above normal in the Southern region, Bow Island reported the greatest precipitation departure, 219 per cent of normal. All other regions in the province reported below normal precipitation.

"At the end of October, many farmers in drier regions were hoping for rain so that the soil moisture would recharge before the ground freezes," adds Dzikowski.

The provincial average temperature of 5.2 degrees C was identical to the 1961 to 1990 normal temperature. The northeast, northwest and Peace regions reported above normal temperatures, while southern and central regions reported normal to below normal temperatures.

"October started off cold, but temperatures rose to near normal by the end of the first week and into the second week," says Dzikowski. "Temperatures were well above normal during the third week, and dropped to near normal by the fourth week."

The provincial averages are based on Environment Canada data recorded at 56 locations across Alberta.

For more information, contact Dzikowski at (780) 427-3594, or visit the Alberta Agriculture internet site at <**http://www.agric.gov.ab.ca**>.

Contact: Peter Dzikowski
(780) 427-3594

Albertans attend National 4-H conferences

Two of the Canadian 4-H Council's premiere programs, the 69th National 4-H Conference, the organization's longest running program, and the 21st annual National 4-H Volunteer Leaders' Conference, were held in Toronto, November 3 to November 7, 1999.

Agriculture . . . Focusing on the Future was the theme of this year's 4-H members conference. Alberta 4-H members who joined delegates from the U.S. and United Kingdom included: Heidi Hofstra - Rolly View 4-H Dairy, Millet; Amanda Kroetsch - Heisler Multi 4-H, Heisler; Eric Smith - Fawcett 4-H Beef, Fawcett; Jackie Yackimec - Myrnam 4-H Beef Club, Beauvallon; Jennifer Lee - Valhalla-Hythe 4-H Light Horse & Valhalla 4-H Beef Clubs, Valhalla Centre; Ryan Lucas - Lomond 4-H Multi, Lomond; Emily Simkin - Coronation 4-H Range Riders, Consort; Peter Van Immerzeel - Lakedell 4-H Beef, Wetaskiwin. Chaperone for the members was Warren Cunningham, 4-H key leader from Milk River.

"Together the 4-H'ers learned new skills, met and made new friends and had a great deal of fun," says Marguerite Stark, provincial 4-H programs specialist with Alberta Agriculture, Food and Rural Development. "The National 4-H Conference provides the opportunity for delegates to participate in educational sessions that focus mainly on agricultural issues. Workshops and discussion groups encouraged delegates to voice their views and opinions and share their ideas with each other and the adult volunteer leaders."

Delegate issue group presentations, tackling some of today's most challenging and relevant issues, were a major focus during the week and revolved around a group research session at the Agriculture Faculty at the University of Guelph. After much discussion, delegates presented informative sessions on tropics ranging from Animal Rights and Animal Welfare; Microbiology & Food Safety; The Future of Rural Society; and, Biotechnology.

4-H volunteer leaders explored the theme *Connecting 4-H Challenges* as they investigated the changing landscape of the 4-H program. National 4-H Volunteer Leaders' Conference allowed 50 volunteer leaders from across Canada and the U.S. to work toward this very important goal. Participating in the conference from Alberta were: Judy Andrews - Meadowview 4-H Multi Club, Barrhead; Deb McMann - Innisfree Crafty Fingers 4-H, Innisfree; Suzon Watkins - Millarville-Stockland 4-H Beef, Calgary; Cecelia Dykstra - West Ponoka 4-H Beef, Ponoka; Lyanne Almberg - East Central Councils, Czar; Karen Boyne - Wembley Wranglers 4-H Multi, Wembley; and Deirdre Schoening - Foothills 4-H Beef, Pincher Creek.

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"The conference not only places emphasis on the further development of effective leadership skills but also helps develop an increased awareness of the needs of today's youth and allows for the exchange of ideas," adds Stark. "The conference theme was supported by sessions focusing on discussing the benefits of being in the 4-H program, investigating the changing landscape of provincial 4-H programs, motivating delegates and empowering them to handle change and connecting the challenges while maintaining a strong 4-H program."

The generous support of program sponsors is an essential element of any 4-H event. On behalf of the 1999 delegates, the Canadian 4-H Council would like to thank the following major sponsors: Bank of Montreal, Sears Canada Inc., Robin Hood Multifoods Inc., Goodyear Canada Inc., John Deere Limited, George Weston Limited, Case Corporation, AgrEvo Canada, Agrium, Schering-Plough Animal Health, Novartis Crop Protection, Agriculture & Agri Food Canada, the participating Provincial 4-H associations and all other supporters for their significant contribution to the success of this year's program.

The National 4-H conference was held in conjunction with National 4-H Week, November 1 to 7, 1999. Each year, National 4-H Week provides the forum to celebrate the accomplishments of the 4-H program and honour the thousands of members, leaders and supporters all across the county who contribute to its success.

Contact: Marguerite Stark
(403) 948-8510

Reduced tillage conference and trade show

Conservation Farming: Beyond 2000, the reduced tillage conference and trade show is being held at the Exhibition Pavilion, Lethbridge, on November 30 and December 1, 1999. The program is organized under the direction of farmers from southern Alberta.

"The two-day conference addresses management issues related to reduced tillage and weed control," says Rob Dunn, cereal and oilseed specialist with Alberta Agriculture, Food and Rural Development, Lethbridge. "Topics that will be covered include: economics, equipment and fertilizer management, agronomy and crop rotations, and row spacing and seeding rate effects."

Included in the list of 15 conference speakers are the following special guests: Dr. Dwayne Beck, Dakota Lakes Research Farm, Pierre, South Dakota; Howard Dahl, Amity Corporation, Fargo, North Dakota; and, Dr. Bob Church, professor Emeritus, University of Calgary.

There will be approximately 30 displays relating to reduced tillage and special crops, providing an excellent chance to catch up on the latest technological advances.

The conference is coordinated by the Southern Alberta Conservation Association (SACA), County of Lethbridge Agricultural Service Board, Alberta Agriculture, and the Alberta Reduced Tillage Initiative.

Registration fees are $50 for a two-day pass or $30 for a one-day pass.

For more information, contact Dunn or Amy Stratton, Alberta Agriuclture, (403) 381-5237. Alberta government numbers are toll free by dialling 310-0000 first.

Contact: Rob Dunn
(403) 381-5117

Obtaining certification from COAB

The Canadian Organic Advisory Board (COAB) Inc. has applied to the Standards Council of Canada for accreditation to certify organic enterprises with respect to the National Standard of Canada for Organic Agriculture. This includes certifying individual producers, processors, handling facilities and other organic enterprises.

"COAB will be developing a certification program that complies with the Standards Council of Canada requirements," says Mike Dolinski, organic marketing specialist with Alberta Agriculture, Food and Rural Development and chair of the Alberta Organic Food Committee, Edmonton. "The Board will assume full responsibility for all aspects of the certification program."

Third party inspectors that have met a minimum criteria of COAB will provide inspection/evaluation reports on behalf of COAB. The reports are submitted to a soon to be created Certification Secretariat of COAB. This review committee will bee comprised of a panel of qualified experts that are independent of the COAB and which assume full responsibilities for interpreting reports and granting certification approval.

"COAB will offer certification to any enterprise that meets the certification criteria of the national standard," says Dolinski. "Organic enterprises may follow a direct route through existing independant organic certification bodies across Canada. In Alberta, there are currently four certification bodies that certify organic farmers. These are somewhat regional, with one in the Peace, one in the northeast operated out of Rochester, one in Calgary and one other in southern Alberta. They offer certification to their region, or may apply directly to the COAB.

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In both cases, COAB will provide the certification services, control listing and labelling agreements, but will not delegate the function of issuing certificates to independent agencies."

Copies of the National Standard of Canada for Organic Agriculture are available by mail from the, Canadian General Standards Board Sales Centre, Ottawa, Canada K1A 1G6; by e-mail <**ncr.cgsb-ongc@pwgsc.gc.ca**>; by phone toll free at 1-800-665-CGSB (2472); by fax at (819) 956-5644. Individual copies are $48 plus GST.

"For producers contemplating conversion to organic production, a portion of the report outlines the required steps and procedures," adds Dolinski. "The conversion period must involve taking all the steps required to fully comply with the standard."

For more information on the Canadian Organic Advisory Board, phone: (403) 262-4640 or e-mail <**coab@cadvision.com**>. The COAB website address is <**http://www.coab.ca**>.

Contact: Mike Dolinski
(780) 422-4873

Anthrax – the facts

Anthrax was a hot topic for cattle producers in the Rocky Mountain House area this summer. As of early November, seven farms were affected by anthrax and a total of 29 cattle and one horse are thought to have died from anthrax.

"Because anthrax is a subject that raises many questions, a few facts may help bring the situation into perspective," says Dr. Jane Pritchard, head of the Airdrie animal health laboratory, Alberta Agriculture, Food and Rural Development.

There are no carrier animals with anthrax – there is no documented case of anthrax caused by the introduction of an infected animal into a herd. Anthrax is most often caused by exposure to large numbers of spores of the anthrax bacteria that have laid dormant in soil for years. Peat soils are believed to be the most common soils that harbor the spores. Anthrax spores are formed under the appropriate conditions from *Bacillus anthracis* bacteria in the carcass of an animal dying of anthrax. These spores contaminate the soil and become a source of infection for other animals. It is very important not to disturb a carcass if anthrax is suspected.

Anthrax is a dose and stress related disease – an animal must be exposed to a large number of spores at one time to get anthrax. Often there are predisposing stress factors that cause an animal to develop anthrax. Affected animals have a very high temperature and appear very sick only for a few hours before dying.

The 1999 outbreak of anthrax in Alberta was in a very small geographic area – all affected cattle grazed within a 10 mile radius and all within a particular watershed. As of November 8, 1999, there had been no cases outside this small area.

Anthrax is easily prevented – there is a very effective and inexpensive vaccine available through veterinarians that prevents anthrax if used following a veterinarian's direction. Vaccinate annually, most preferably six to eight weeks before cattle go to pasture.

Anthrax is rare in humans – about 95 per cent of anthrax in humans is the skin form. It appears as an unusual boil on the skin. All forms of anthrax are treated very effectively with antibiotics. Cattle and other ruminant animals are more susceptible to anthrax than humans.

Anthrax is a federally reportable disease – if anthrax is suspected, do not touch the carcass. Cover the carcass so other animals cannot touch it and notify your veterinarian immediately.

For further information on anthrax, contact your local veterinarian.

Contact: Dr. Jan Pritchard
(403) 948-8575
Dr. Cornelia Kreplin
(780) 427-6159
Dr. Gerald Ollis
(780) 427-6535

Agri-News Briefs

Self-shearing sheep

An article in ***The Furrow***, October 1999, discussed one of the newest products in the livestock industry, Bioclip. The product, based on a common protein, epidermal growth factor (EGF), stimulates the growth of certain tissues in animals and also causes merino sheep to molt. EGF was discovered 20 years ago by a biochemist at the Vanderbilt University and Australia's national research agency has been working to harness this protein ever since. Administered as an injection, this labor-saving product eliminates the need for manually shearing. Each sheep is fitted with a net that catches the fleece. The process takes about a week. Instead of sharpening and lubricating the shears, wool producers may now be spending time mending the hairnets. Wool prices in Alberta are low compared to Australia, so the use of this drug may not be as appealing to producers here. For further information, contact Wray Whitmore, sheep specialist with Alberta Agriculture, Food and Rural Development, (780) 427-4571.

Stored grain insects

Fall and winter are not usually times when farmers think of pests, but they should be checking their bins every couple of weeks. When grain is harvested warm, condensation can form on the top of bins, creating a perfect breeding habitat where pest populations can build up quickly. This results in further heating and spoilage of the grain. Grains infested by insects can become moldy and musty, and lose germination, milling and baking quality. Some simple precautions include: clean up and dispose spilled grain from around granaries; clean trucks, handling equipment and bins to reduce the chance of infestation; and in the fall, apply a Malathion solution to help ward off pests. Some counties provide fumigation services, so if an infestation problem is detected, contact the local Alberta Agriculture district office or the county office.

Livestock care conference

Animal welfare in Europe, North America and Alberta: The pressures, the legislation, the realities that impact producers, processors and marketers, is the theme of the Livestock Care Conference being held at the Delta South in Edmonton on January 12, 2000. The conference is sponsored by Alberta Farm Animal Care (AFAC), the Alberta Society for the Prevention of Cruelty to Animals and Alberta Agriculture, Food and Rural Development. Four dynamic speakers will make presentations at the conference: Dr. John Webster, professor of Animal Husbandry, University of Bristol – The EU Situation: Limping or Leaping Forward?; Jerry Bouma, Jerry Bouma with Toma and Bouma Management Consultants, Edmonton – Alberta's Strategy: What Direction? What Impact?; Dr. Temple Grandin, professor of animal science, Colorado State University and Director, Grandin Livestock Systems and Ron Usborne, with Caravelle Foods the Canadian beef supplier for McDonald's – McDonald's Tackles Animal Welfare Head On; and, Betty Gabert, head of Agriculture In The Classroom – Harvesting the Stars: How teenagers deliver the Animal Welfare and Biotech Message. Registration for the conference is $80 (includes GST), student rates are also available. To register or for more information, contact AFAC at (403) 932-8050 or e-mail **<info@afac.ab.ca>**.

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Agri-News

November 22, 1999

Changing dynamics of the organic marketplace

The organic marketplace is a place of opportunities, but it's not without obstacles, too.

"Well educated 'baby-boomers' are driving the demand for food produced without chemicals," says Kerry Engel, rural development specialist - business with Alberta Agriculture, Food and Rural Development, Westlock. "Questions still remain, however. Is organically produced food better? Is it better for the environment?"

Regardless of individual beliefs, the Canadian organic consumer purchased an estimated $800 million worth of organic food in 1998. This represents only two per cent of our total food production, but it is a market that has an estimated growth rate of 20 per cent per annum. These statistics have many producers and processors investigating this niche market.

Tina Park, owner of Excel Foods in South Edmonton, has been in the organic retail business for fourteen years. Park says, "The last four years have seen the greatest expansion in Edmonton for organic retail outlets."

The recently released ***Study of Organic and Natural Food Market Opportunities in the Pacific Northwest***, estimates that in Alberta, 80 to 90 per cent of organic and natural food products are sold through natural/organic food stores. Organic sections are popping up in many conventional grocery stores.

Exact data on organic production levels in the province are not available. "There are about 150 certified growers, according to the ***Alberta Organic Food Producers and Processors Directory*** but acreage, crop varieties and animal numbers have not been collected," says Mike Dolinski, chair of the Alberta Organic Food Committee. "One of the objectives of the Canadian Organic Advisory Board (COAB) is to get a handle on production numbers once funding is available."

"Without specific information, it is difficult to make accurate market predictions and to respond to market opportunities," says Ken McCormack, project manager with Alberta Agriculture's marketing services division. "The recently passed organic certification standards should help with the database, but accurate production numbers will still be lacking."

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Alberta
AGRICULTURE, FOOD AND RURAL DEVELOPMENT

Marina Buchan, an organic producer and member of the Peace River Organic Producers Association, believes there is tremendous opportunity for growth in the organic industry. "BC's lower mainland offers a large, regional market for organic food. It's up to the industry to develop value added products and market them there in Alberta," she says.

Establishing a 'gate to plate' organic industry able to meet the increasing demand is not an easy challenge. Processing facilities must have either a provincial or federal food processing facility licence, plus they must be certified as an organic processor. With few organically certified processing facilities in the province, and even fewer organic protein processing facilities licensed to federal or EU standards, export market access is limited. Distance to market, the high cost of shipping and processing, and limited regional packaging suppliers are other hurdles the organic industry must overcome.

Organic products traditionally demand a price premium of 50 per cent or more. As the industry goes mainstream, the margin between regular and organic products will narrow. "It's important to establish an education process that focuses on the benefits of sustainable agriculture and organic products," says Buchan. "Consumers have to know why it costs more to produce organically so they'll continue supporting the industry as it grows."

Interest in organic food is increasing steadily. More certified organic growers are needed to develop the sector to maximize returns and fully participate in market opportunities. It's important to do the necessary research and develop a complete business plan. Talk to grower associations, processors, producers, regulatory agencies and Alberta Agriculture specialists before investing in an industry where the risks can be as great as the opportunities.

For more information on Alberta's organic industry, contact Engel, at (780) 349-4465 and ask for a free issue of the latest ***Northwest Processor Newsletter** – Linking farm managers and rural food processors with information, technology and research*.

Several organic workshops are being planned across the province next year. Those interested in organic production, processing or the upcoming workshops can contact the local rural development specialist-business for more information.

Kerry Engel	Westlock	(780) 349-4465
Lori-Jo Graham	Claresholm	(403) 625-1445
Linda Hawk	Hanna	(403) 854-5500
Sharon Homeniuk	Stony Plain	(780) 963-6101
Tim Keating	Falher	(780) 837-2211
Morley Kjargaard	St. Paul	(780) 645-6301
Donna Fleury	Airdrie	(403) 948-8537
Janice McGregor	Morinville	(780) 939-4351
Leona Reynolds-Zayak	Vermilion	(780) 853-8101
Linda Hawk	Medicine Hat	(403) 529-3616
Lynn Stegman	Lacombe	(403) 782-3301
Jan Warren	Vulcan	(780) 485-2236
Marian Williams	Camrose	(780) 679-1210

Contact: *Kerry Engel*
(780) 349-4465

Earth to table

Earth to Table, a culinary showcase celebrating local, naturally-grown products and the people who grow them, takes place on November 30 at the Hotel Macdonald in Edmonton.

"Three of Alberta's top chefs: David Garcelon, executive chef at the Jasper Park Lodge; Mario Mathieu, executive chef at the Hotel Macdonald; and, Michael Allemeier, executive chef at Calgary's Teatro restaurant will be preparing regional fare for an estimated 150 supporters of great regional cuisine," says Colleen Biggs, one of the showcase organizers. "The evening's menu will include over 20 local products such as grassfed, naturally raised beef, pasture fed turkey and chicken, organic pork and lamb, heirloom tomatoes, locally-produced cheeses, first press canola, organic buffalo and many more unique Alberta products. Diners will also have the opportunity to meet the producers of these products as they will also be in attendance at the Earth to Table event."

This spectacular food event is being co-organized by the members of the Prairie Chapter of Cuisine Canada and Earth to Table. Cuisine Canada is a national alliance of food professionals who share a common desire to encourage the development, use and recognition of fine Canadian food and wine. Earth to Table is a non-profit coalition of naturally responsible producers, awareness-oriented distributors and quality concerned chefs.

Anyone interested in attending the Earth to Table Culinary Showcase can contact Veronica Luyer at the Hotel Macdonald (780) 429-6403. Tickets for the event are $60.

Contact: *Colleen Biggs*
(403) 578-2404
grassfed@telusplanet.net

David Garcelon
(780) 852-6426
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A "tag" team effort

By December 31, 2000, all beef cattle in Canada will be tagged through the Canadian Cattle Identification Program, administered by the Canadian Cattle Identification Agency (CCIA). This simple traceback system involves ear-tagging with approved tags by the time cattle leave their herd of origin. The tag stays with the animal until the carcass is inspected at the packing plant.

"The CCIA is an incorporated agency with the mandate to develop and implement a system of individual identification traceback for beef cattle in Canada," says Cindy McCreath, CCIA communications coordinator. "In the 1920's, the federal government's Health of Animals program identified and tagged individual animals to eradicate tuberculosis. From the 1940's to the 1980's animals were tagged to eradicate brucellosis. About 95 per cent of Canada's cowherd was individually identified for traceback under this program until 1985. These numbers have slipped. By 1995, only about 10 per cent of the national beef cowherd was identified for traceback. Issues arising around the world have re-established the need for a cattle ID and traceback program."

A national ID program is essential to give industry and government the capability to quickly respond to and contain a disease or food safety problem should the need arise. The information will be secure and the CCIA will only provide access of those records to the Canadian Food Inspection Agency in the event of a request for traceback for health or safety reasons.

"Around the world, over 25 countries are developing or already have individual identification programs in place," adds McCreath. "Canada exports 50 per cent of its beef and cattle production and this program will help safeguard that growing international market. If a problem were to be detected, the tag allows a more efficient search to identify the source of the problem, by working from both the point the problem was detected and from the herd of origin. Quick response is essential."

For the individual identification program to work, a national identification ear tag will be applied by the time an animal leaves the herd of origin. Numbers will be assigned by the CCIA to approved tag manufacturers. They will be distributed directly from manufacturers and through approved distributors.

"Tag distributors will record the tag numbers given to producers and submit that information to the CCIA database," adds McCreath. "Producers will not be required to keep additional records, although many will likely use the CCIA identification number for their own management records."

The system is not being developed to replace branding, however ,coordination of efforts in this initiative is expected While the branding program is designed for tracking ownership, primarily in the west, the CCIA program is being developed across Canada for health and safety traceback.

"Tag retention trials have been successfully completed and in-plant trials of tag readability are on-going," says McCreath.

In order for the program to be effective and maintain credibility domestically and internationally, all beef cattle must be identified. The goal is to have a cost efficient and effective program supported by the industry implemented by December 31, 2000.

"Start-up funds for the CCIA were received through a grant from the Beef Industry Development Fund," continues McCreath. "Additional funds being used for trials and development have been approved through Agriculture and Agri-Food Canada, the Canadian Food Inspection Agency, a number of provincial governments and private industry organizations. In the long-term, the program will be self-sustaining through sources such as tag sales, industry services and certification fees. It is expected that a basic CCIA tag will be available for under $1 per tag."

To assist cattle producers understand this program and familiarize themselves with it, a Speakers' Bureau has been established. These speakers are available to give presentations at meetings, present information at seminars or at any other cattle-related functions.

Speaker Bureau members in Alberta are:

- James Hansen, beef specialist, Alberta Agriculture, Food and Rural Development, Cardston
- Jeff Millang, beef specialist, Alberta Agriculture, Food and Rural Development, Olds
- Delyn Jensen, beef specialist, Alberta Agriculture, Food and Rural Development, Medicine Hat
- Pat Ramsey, beef specialist, Alberta Agriculture, Food and Rural Development, High River
- Brad Fournier, beef specialist, Alberta Agriculture, Food and Rural Development, Fairview
- Mabel Hamilton, Board of Directors, CCIA and cattle producer, Innisfail
- Sean McGrath, breed improvement coordinator, Canadian Charolais Association, Calgary
- Libby Sally, breed development, Canadian Angus Association, Calgary

For more information, contact the Alberta Cattle Commission or the CCIA at 1-888-909-BEEF (2333). Information can also be found on-line at the CCIA website <**www.cattle.ca/ccia**>.

Contact: *Cindy McCreath*
(403) 275-2083

Anti-dumping ruling proves fair trading in cattle

The Alberta government is pleased with a ruling handed down by the United States International Trade Commission (ITC) stating that there is no evidence that imports of Canadian cattle have caused injury to US cattle producers.

The ruling means that Canadian cattle exports to the US will no longer be subject to an anti-dumping duty. The provisional anti-dumping duty imposed in July will be removed and all duties collected since that time will be refunded, with interest, to Canadian cattle exporters.

"This ruling confirms once again that Canadian cattle are traded fairly," says Ty Lund, Minister of Agriculture, Food and Rural Development. "It will end months of uncertainty over access to US markets. But it is unfortunate the Canadian cattle industry, as well as government, had to spend a lot of time and money defending against these unfounded allegations."

The anti-dumping investigation was one of two trade actions brought against Canada by the Ranchers-Cattlemen Action Legal Foundation (R-CALF). In an earlier ruling, the US Department of Commerce (DOC) confirmed that the Canadian cattle industry did not receive sufficient subsidies from federal and provincial governments to justify imposing countervailing duties.

The ruling ended the countervail investigation.

"This anti-dumping ruling proves what we have said all along – the North American cattle industry is a single, fully integrated market," says Shirley McClellan, Minister of International and Intergovernmental Relations. "We will continue working closely with the Alberta cattle industry to facilitate two-way trade with the US and address any remaining cross border trade issues."

Contact: *Bard Haddrell*
Alberta Agriculture
(780) 427-5312

Kathryn Wiegers
Alberta International and Intergovernmental Relations
(780) 422-2465

Entertainment agriculture

There's gold to be discovered in old-fashioned country fun. Busy urbanites are seeking places to go for a weekend family outing and farmers are capitalizing on this by offering opportunities for people to experience farm life. They may offer hay rides, cross country skiing on farm trails, skating on a pond or creek, a petting zoo for kids, school tours, special event days or seasonal festivals.

"Within the northwest region of Alberta, there were several farm festivals running this fall," says Kerry Engel, rural development specialist-business with Alberta Agriculture, Food and Rural Development, Westlock. "For example, at the Prairie Gardens Pumpkin Festival near Bon Accord in October, visitors could enjoy the wagon ride, get lost in the straw bale maze, take a scary trip on the witches walk, have a giggling good time picking out pumpkins and try their hand at making a scarecrow."

Turning your farm into a rural attraction isn't something that happens overnight. It's best to start with simple things, such as adding a shaded picnic area to a roadside stand. Many products and enterprises, such as a bakery or restaurant, contests, hay rides, farm vacations and crafts, can be added to a roadside market or pick-your-own operation to attract customers.

"Be prepared to put lots of time and energy into entertaining your customers," continues Engel. "Part of the attraction for customers is meeting the farmer. Liking people and being a bit natural showman are real pluses. If you're not the 'entertaining-type', you may want to think twice before getting involved in entertainment agriculture.

"At some of the festivals I've been to, the farmers/entertainers have made great strides to enhance and improve their festivals each. The satisfaction they get from dealing with the public and the pride in their products and agriculture is very evident."

Entertainment farming offers several advantages: opportunity for additional profit; opportunity to use the farm as an education centre; access to a large urban market; and, once positive company image is established, advertising costs are minimal as most is done through word of mouth.

Some of the disadvantages may include: additional labour costs, including a customer service focused staff training program; increased insurance coverage, licenses and permits; and, initial promotional and marketing costs.

If you are interested in learning more about incorporating agri-tourism in your farm business contact one of Alberta Agriculture's rural development specialists-business:

Kerry Engel	Westlock	(780) 349-4465
Lori-Jo Graham	Claresholm	(403) 625-1445
Linda Hawk	Hanna	(403) 854-5500
Sharon Homeniuk	Stony Plain	(780) 963-6101
Tim Keating	Falher	(780) 837-2211
Morley Kjargaard	St. Paul	(780) 645-6301
Donna Fleury	Airdrie	(403) 948-8537
Janice McGregor	Morinville	(780) 939-4351
Leona Reynolds-Zayak	Vermilion	(780) 853-8101
Linda Hawk	Medicine Hat	(403) 529-3616

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Lynn Stegman	Lacombe	(403) 782-3301
Jan Warren	Vulcan	(780) 485-2236
Marian Williams	Camrose	(780) 679-1210

Upcoming Agri-tourism courses:

Diversifying Into Agri-Tourism:

January 20, Medicine Hat
February 9, Stettler

Marketing your Agri-tourism Business,

January 20, Edmonton at Fort Edmonton.
February 3, Lethbridge
February 16, Fahler
March 2, Airdrie

Rural Accommodations, February 23, 2000 in Stony Plain.

For brochures, call one of the rural development specialists-business.

Contact: *Kerry Engel*
(780) 349-4465

Auctions, livestock and post-dated cheques

Revenue Canada has made a determination that when an auction mart receives a cheque from a buyer, the livestock seller is deemed to have received the income from the sale.

"For the livestock producer, this means that with the exception of a sale on the last two days of the year, all sales through an auction market will need to be declared as income in the year they were sold," says Graham Gilchrist, farm management specialist with Alberta Agriculture, Food and Rural Development.

Revenue Canada has decided that the sale of the livestock takes place on the date of the cheque issued by the purchaser The post-dated cheque issued by the auction market is simply a release of the funds held in trust.

"This trust is set up under the Livestock and Livestock Products Act. Any and all sale proceeds are to be held in trust by the auction market and paid out within two days of purchase," adds Gilchrist. "If a seller wishes to waive the two-day requirement, then that allows the auction market to issue a trust cheque on a mutually agreed to date. Signing a waiver does not change the date of sale of the livestock."

Revenue Canada has not yet made an interpretation on a private treaty sale when a dealer is not involved. An example is the sale of a bull. If payment is made with a post-dated cheque from the buyer, then the sale is the date of the cheque.

If using a dealer to sell replacement heifers and they don't go through the ring, the same interpretation as an auction market applies. When the buyer gives a cheque to the dealer, the date on the cheque is the date the seller receives the money.

Albertans with any questions, are encouraged to discuss this with their accountant. They can also call Gilchrist or the farm management specialist in their area.

Contact: *Graham Gilchrist, P. Ag.*
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Agri-News Briefs

Canola Commission regional meeting

The Canola Commission is holding a regional meeting for regions 6 and 7 at the Reynolds-Alberta Museum, Wetaskiwin, on November 24, 1999. The canola producers annual report will be presented and the directors of regions 6 and 7 will be available to answer questions from their farmer constituents. Other items on the agenda include a market outlook presentation from Dave Reimann of Growers' Marketing Services, production advice from Phil Thomas, provincial oilseed specialist with Alberta Agriculture, Food and Rural Development and a presentation by Simone Demers-Collins on food safety. Commissions are producer organizations and the commission meeting is a great place to establish contact with your representative commission members. The meeting provides an opportunity to voice concerns, identify issues, share information, discuss new products and markets, and promote the commodity. For further information, contact Ron Hockridge, crop specialist with Alberta Agriculture at (780) 361-1240, Wetaskiwin.

Holistic management training program

A holistic management training program, Learn How to Plan for Profit While Restoring the Land and Caring for the People is being offered in the new year. The program will be held in Red Deer on January 17 to 21, 2000. The highlight of this training program is planning for profit while taking care of the people and improving the health of the land. The program, supported by the Farm Business Management Program, costs $1,050 (plus GST) per farm unit of up to four people. For more information or to register, contact Randee Halladay, toll free at 1-800-946-5476.

Beef manager's classic

A one-day seminar organized by Alberta Agriculture, Food and Rural Development, ***Beef Manager's Classic*** will provide the cow/calf manager with information on timely management topics and issues. Presentations will be made on: Auction mart survey - results from the 1998 fall run study; Cow/calf audit - current production and management practices; Sustainable cow/calf production; Cow nutrition; National ID and traceback; and Silage research - findings from the latest research on growing and feeding silage. The seminar will be held in three locations in Alberta:

• December 14, 1999	Mayerthorpe	Mayerthorpe Legion
• December 15, 1999	Westerose	Lakedell Centre
• December 16, 1999	Rochester	Rochester Hall

Registration deadline is December 9, 1999 and the cost of the seminar is $15 per person (includes GST). For more information or to register, contact one of the following Alberta Agriculture district offices: Sangudo (780) 785-2266; Wetaskiwin (780) 361-1240; and Athabasca (780) 675-2252.

Agri-News

November 29, 1999

Public meetings to outline agriculture disaster initiatives

Farmers in need of disaster assistance can learn more about Alberta's enhanced farm income disaster initiatives by attending one of 32 meetings being held around the province.

"The enhanced disaster initiatives will help farmers in all areas of the province suffering from disastrous weather and severe farm income shortfalls," says Ty Lund, Minister of Alberta Agriculture, Food and Rural Development. "We felt community meetings around the province were one of the best ways to give detailed information to farmers. It also provides a vehicle for them to get face-to-face answers to their questions."

Lund notes that those who can't attend a meeting in their area still have several other ways to get information on these initiatives. This includes a toll-free information line, the FIDP (Farm Income Disaster Program) Internet site and personal appointments with Agriculture Financial Services Corporation (AFSC) staff who are administering the programs.

On October 14, 1999, Lund announced several initiatives to assist farmers, particularly those in northern parts of the province (northeast, northwest and Peace regions), who are experiencing continuous years of disastrous weather and abnormal price declines. The initiatives are similar to previous Alberta government assistance programs created in response to disasters, such as fire and flood, in other industry sectors.

Lund says enhancements to the existing Farm Income Disaster Program (FIDP) to broaden the eligibility rules of the program for the 1998 tax year and beyond. A new Alberta Farm Income Disaster Loan Program (AFIDLP) was also announced which offers a low-interest loan with the option to defer payments during the first two years.

Farmers have until February 29, 2000 to apply under the enhanced Farm Income Disaster Program (FIDP), and until March 31, 2000 to submit a loan application for the new Alberta Farm Income Disaster Loan Program.

To apply for FIDP, farmers can get a printable guide and application form after November 15 on the FIDP Internet site <**www.agric.gov.ab.ca/afsc**>. Copies can be obtained in late November by calling the FIDP toll-free information line 1-800-851-5070, or from the local offices of AFSC and Alberta Agriculture.

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Copies will also be made available at the meetings. To apply for the new Alberta Farm Income Disaster Loan Program, farmers are encouraged to contact an AFSC district office to set up an appointment with a loans officer.

"The deadlines for these programs have been set to give farmers as much time as possible to collect information about these programs and where necessary prepare their applications," Lund adds. "Claims and loan applications will be processed in the order they are received, so financial help will get into the hands of farmers quickly."

Alberta Agriculture Income Disaster Initiatives Meetings began on November 22 and continue to December 2, 1999 in the following locations:

Peace Region

High Prairie (Elks Hall)	Nov. 22	1:30 pm
Falher (Donnelly Sportplex)	Nov. 22	7:30 pm
Grimshaw (Elks Hall)	Nov. 23	1:30 pm
Manning (Battle River Ag. Hall)	Nov. 23	7:30 pm
Rycroft (Community Hall)	Nov. 24	1:30 pm
Fairview (Dunvegan Motor Inn)	Nov. 24	7:30 pm
Grande Prairie (Golden Inn)	Nov. 25	1:30 pm
Valleyview (Memorial Hall)	Nov. 25	7:30 pm

Central Region

Rimbey (Rimbey Legion)	Nov. 29	1:30 pm
Oyen (Legion Hall)	Nov. 30	7:30 pm
Hanna (Community Centre)	Dec. 1	1:30 pm
Castor (Golden Circle Club)	Dec. 1	7:30 pm
Red Deer (Valley Centre Com. Hall)	Dec.1	7:30 pm
Olds (Best Western)	Dec. 2	1:30 pm
Stettler (Ag. Society Pavilion Bldg.)	Dec. 2	7:30 pm

Northeast and Northwest Region

Lac La Biche (Town Hall)	Nov. 22	1:30 pm
St. Paul (Sr. Citizen Club)	Nov. 22	7:30 pm
Lamont (Rec Centre)	Nov. 23	1:30 pm
Vegreville (Elks Hall)	Nov. 23	7:30 pm
Vermilion (Elks Hall)	Nov. 24	1:30 pm
Wainwright (Communiplex)	Nov. 24	7:30 pm
Viking (Caledonia Motor Inn)	Nov. 25	7:30 pm
Provost (Recreation Centre)	Nov. 25	1:30 pm
Camrose (Norseman Inn)	Nov. 26	1:30 pm
Mayerthorpe (Legion Hall)	Nov. 29	7:30 pm
Athabasca (Community Hall)	Nov. 30	1:30 pm
Radway (Community Hall)	Nov. 30	7:30 pm
Barrhead (Provincial Building)	Dec. 1	1:30 pm

South Region

Cardston (Legion Hall)	Nov. 29	1:30 pm
Lethbridge – (El Rancho Hotel/ Travelodge)	Nov. 29	7:30 pm
Medicine Hat (Eagles Club)	Nov. 30	1:30 pm
Strathmore (Community Centre)	Dec. 2	1:30 pm

For further information on FIDP, producers can call 1-800-851-5070.

For further information on the Alberta Farm Income Disaster Loan Program, producers can call any local district office of Agriculture Financial Services Corporation (AFSC).

Contact:

Michael Lohner
Office of the Minister
(780) 427-2137

Dave Schurman
AFSC Farm Income
Disaster Program
(403) 782-8330

Frank Blush
AFSC Alberta Farm Income Disaster
Loan Program
(780) 679-1354

Government numbers are toll-free by dialling 310-0000 first.

Plant the Seeds of Farm Safety

"***Plant the Seeds of Farm Safety*** is one of the most significant contests the Farm Safety Program has done in the last five years, because it was very interactive," says Solomon Kyeremanteng, Alberta Agriculture, Food and Rural Development's Farm Safety Program head, Edmonton. "The kids showed us how successfully they can cultivate, harvest and do it all by keeping safety in mind."

The ***Plant the Seeds of Farm Safety*** contest, co-sponsored by Hole's Greenhouses and John Deere Limited, distributed packets of sunflower seeds to rural children in grades one to four. Along with the planting the seeds, caring for them and watching them grow, children were asked to write about how they are making their farm a safe place and send their words of wisdom in to the Farm Safety Program.

Grand prize winners of a family trip for four to Edmonton or Calgary to take in an NHL Hockey Game are:

Lynsey Schuld of Iron Springs who wrote, "Always wearing our helmets when we ride our bikes, or our horses. My blanket-saddle stirrups are covered on the outside, so my feet can't slip through the stirrups. We also fenced off the manure pit, and also two extra driveways that we had leading into our farm. Our farm always stops for an hour at lunch time, so everyone gets a break. I have enclosed a picture of the sunflowers I planted. I do want to become a farm safety friend, as a Safe Farm is a Great Place to Grow."

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Tanis Asmussen of Manning who wrote, "Bails aren't a playground."

Ten entries were also chosen to receive Lois Hole's book, *I'll Never Marry a Farmer*:

Brett Rangust, Warburg; **Eric Friesen**, LaCrete; **Sabrina Alice Cober**, Barrhead; **Lianna Bos**, Camrose; **Robert Miners**, Breton; **Shannon Campbell**, Eckville; **Jade Elan Jackson**, Carmangay; **Kelly McCoy**, Beaverlodge; **Travis Ness**, Lougheed; and, **Adam Desranleau**, Bonnyville.

From the many entries received, an additional 50 children received knapsacks with cooler bags and another 100 received insulated lunch bags.

"Every year several Alberta children are killed or injured in farm accidents. Alberta Agriculture has launched various awareness campaigns in an effort to get children and parents alike to practice farm safety at all times," says Kyeremanteng. "The support generously given by Hole's Greenhouse in St. Albert and by John Deere Limited is most appreciated. There is no better place to begin building farm safety awareness than with our children."

Plant the Seeds of Farm Safety was launched at Sunnyside School near Lethbridge.

Contact: *Solomon Kyeremanteng*
(780) 427-4227

Thinking of sweetening up the farm income?

In recent years, hundreds of farmers have taken steps to diversify. More and more farmers and acreage holders are turning that 'extra' piece of ground into a profitable alternative agricultural crop. Pick-your-own berry operations, once a minor entity in the Alberta horticultural industry now number in the hundreds across the province.

"What seems to be driving the expansion of this type of alternative crop is the 'new' consumer that is looking for fresh, locally produced, top quality produce," says Lloyd Hausher, provincial fruit crops specialist at Alberta Agriculture, Food and Rural Development's Crop Diversification Centre South, Brooks. "These new consumers are becoming increasingly more health conscious and are always looking for new and nutritious products. Knowing where the produce comes from, how it is grown, and even the farmer who produces it, is becoming increasingly important. In this area of the market, price is less important, but personal customer service, which is provided at pick-your-own operations is more important."

As demand for fresh, quality products continues to increase, so does the opportunity for Alberta's established berry producers or prospective new berry producers.

Strawberries, raspberries and saskatoons are the three most sought after direct-market berry crops. Some growers are branching out to other crops such as chokecherries, pincherries, black and red currant and sour cherries as demand at their specific location warrants.

With the development of new varieties of strawberries and raspberries, consumers can obtain fresh-picked fruit from early July until freeze-up in September to October.

"Most of Alberta's direct-market berry industry is u-pick or pick-your-own based," says Hausher. "This reduces the harvest labor input of the operation to field supervision and sales. Although at present it is minor, there is an increasing quantity of fruit being sold pre-picked at the farm gate and farmers' market."

Regardless of how it is marketed, growers continue to have more demand than product. Most producers end up with a mailing or phone list at the end of the year of people still wanting berries.

"Proximity to a large urban centre, and the potential customers who live there, is most important if looking at starting a direct-market berry farm," adds Hausher. "Water for irrigation, shelter, soil type and topography are also considerations."

Very little capital input is needed as machinery required is minimal. Most producers have obtained a good to very good rate of return from these farm operations based on their managerial ability and weather cooperation.

Persons interested in this rapidly expanding industry may want to attend the upcoming ***Commercial Berry Production School*** being held at the Sandman Inn in Edmonton on January 25 and 26, 2000. This is the 14th annual school and topics covered range from general requirements of establishing a commercial berry farm and information sources to the specifics of producing strawberries, raspberries and saskatoons for direct market sales.

For more information on the Commercial Berry Production School, contact Hausher (403) 362-1309 or Fax (403) 362-1306 or Kerry Engel, rural development specialist – business, Westlock (780) 349-4465

Contact:	*Lloyd Hausher*	*Kerry Engel*
	(403) 362-1309	*(780) 349-4465*

Alternative livestock – novelty or profitability?

Producers have seen a lot of action, both positive and negative in the alternative livestock industry over the past few years. With some animals, production has been purely a novelty while in other cases people have and are continuing to profit. Bison, elk, deer and fish are being marketed for breeding stock, meat, by-products and for recreational hunting or fishing.

"Before beginning a new enterprise, you must know who will buy the product, how much they are likely to buy and what price they will pay," says Kerry Engel, rural development specialist - business with Alberta Agriculture, Food and Rural Development, Westlock. "Producers must also understand the market. Good marketing skills are especially important for new or unusual enterprises. It's the most important determinant of success with alternative products. Diversifying into alternative livestock goes way beyond what type of fence and feed is required."

There is no magic to market research, it is not a crystal ball that can predict the future sales with certainly. But, research does provide information to help project future trends and plan a marketing program.

Alberta Agriculture is hosting a one-day **Alternative Livestock Symposium** on January 26, 2000, in Westlock. The objective of this one-day symposium is to assist producers looking to diversify their farm operations with alternative livestock. The information provided will help new producers assess the challenges, realize the risks and investigate the opportunities in the bison, elk, white tail and mule deer and aquaculture industries.

Participants will have a chance to hear government specialists and industry representatives speak on the alternative livestock industry and provide specific information on the featured livestock. Participants will gain a better understanding for the outlook of the alternative livestock industry by hearing the keynote address by Dr. John Church.

"Information on market risk, business planning and resources needed will be provided, as well," adds Engel. "Participants can choose to attend two concurrent sessions: bison or deer and elk or aquaculture. The conference will also provide the opportunity to view displays and network with representatives and specialists from industry, local communities and government agencies."

Contact: *Kerry Engel*
(780)349-4465

Feeding the pre-winter beef cow

Every beef cow producer should be concerned about getting beef cows wintered so that they will be able to deliver a healthy, strong newborn calf. More importantly, what is done nutritionally during the next five to six months will have a large influence on calf survivability and the cow's re-breeding potential next year.

"Producers should consider the cow's nutritional requirements over the winter months," says Bill Grabowsky, beef specialist with Alberta Agriculture, Food and Rural Development, Wetaskiwin. "On average, many of Alberta's cow herds are in their mid-third period of gestation in the annual production cycle. Calves have been weaned and the cows' bodily needs are essentially the lowest they are going to get. No big demands on their systems are being made until mid–January. Cows in poor body condition should be fed differently, though. Breed condition scoring, if practising this management technique, is made and many producers shoot for a 2.5 or a 3.0 on a scale of one to five. Those in a 3.0 to 3.5 can afford to loose weight but those in a 2.5 or less should be fed to maintain or increase condition."

Low quality roughages should be supplemented with energy, protein, vitamins and minerals. Correcting shortfalls and balancing the nutritional needs of the cow in the last stage before calving is highly important.

"If produces short-change cows in the last 50 to 60 days before calving, the results will be low milk production, weak calves, lower rates of first service conception and reduced weaning weights," adds Grabowsky. "I'm sure most producers want to do things right nutritionally. Correcting imbalances now and before calving will greatly reduce the chances of reproductive and performance problems."

Weather, feed quality, breed makeup and cow condition all influence the end product. A good manager can put these factors together and correct the imbalances. It will pay dividends to those who place reproduction and calf survivability as their number one concern.

Agriculture staff have access to Cowbytes, a beef cow ration balancing program. Producers who would like to have their herd's rations checked, should give the local Alberta Agriculture district office a call and ask to talk to the beef specialist.

Contact: *Bill Grabowsky*
(403) 361-1240

Innovation makes a difference in direct seeding

Dennis Helfer and his wife Elaine farm south-east of Donalda, Alberta. Helfer has been direct seeding field crops since 1989. Over the years he has adapted machinery to meet specific needs in his operation. His seeders give one example of the innovation and planning that have gone into his farm operation.

"Helfer's primary seeding machine has been adapted from a Friggstad air seeder," says Grant Nelson, soil conservation specialist with Alberta Agriculture, Food and Rural Development, Stettler. "He has retrofitted the shank assemblies with K-Hart disk units set at 12 inch spacing. The K-Hart disks use a 3/4 inch offset on the blade arrangement, which reduces hair-pinning. This seeder allows for seeding speeds as fast as 7 mph."

Right now, Helfer is working on a modified Prasco air seeder with 26 and 28 inch sweeps, spaced at two feet. The sweeps work similar to a small Noble blade, cutting under the soil surface. Each sweep has a divider boot that shoots fertilizer down the wings of the sweep. Coulters have been mounted in front of each sweep. With these coulters, the system is capable of cutting through foot tall slough grass without balling up. The coulters cut the heavy straw cover almost effortlessly. When testing this system the blades slide underneath vegetation often leaving little or no trace.

"K-Hart seed openers are placed in a row behind the sweeps for seed placement," adds Nelson. "These are set for one foot row spacing. Fertilizer applied with the modified Prasco air seeder runs down underneath the sweeps on a modified boot. The delivery tube from the Prasco was divided and bent to allow for fertilizer to be delivered out the front air tank and seed out the back of the air cart using a 75-55 Super Seeder."

The width of Helfer's air drill is 36 feet. Thirty-six tubes run from the Super Seeder air cart to the K-Hart openers. Eighteen tubes run from the air cart to the cultivator sweeps using the split divider.

"The delivery system will put most of the fertilizer in a circle about two inches across the outside of each boot, says Helfer. "The sweeps and K-Hart openers are placed to allow fertilizer distribution just outside and below the seed row."

The K-Hart disk system, with the two seed disks having a 3/4 inch inward offset on the blade arrangement, is much like the old double disk drills to reduce hair-pinning. A small, pivoting packing wheel is placed behind the blade assembly. This independent packing system follows the ground well. The minimum disturbance K-Hart disks help reduce soil disturbance while placing seed following the sweeps.

"As long as straw is shorter than two feet, I am able to go out and slice in underneath the standing stubble and leave it standing, while delivering the seed," says Helfer. "The frame of the Prasco is an old 40 foot 204 CCIL cultivator and although they don't have a lot of clearance, they have a good heavy shank and spring system."

The fertilizer tank on the Prasco seeder has an orbit motor that runs off the original feed cup. The orbit motor allows the feed cup to run at different rates. Fertilizer delivery is controlled from the cab allowing Helfer to change fertilizer rates on the move. The rate of fertilizer is controlled using a hydraulic flow control.

"Because Helfer has direct seeded more than 10 years, the soil on his land is very mellow," says Nelson. "Sunken wheel tracks can occur where machinery travels over the land in the fall. For this reason, he has considered using the modified Prasco to increase the level of disturbance when seeding."

"I do not think this will be a fast machine," says Helfer. "Its speed will probably be limited to a maximum of 5 mph. But, combining fertilizer with the seeding operation will save passes over the field, reducing compaction and overall time to prepare the seed bed."

Disk openers fit well with Helfer's overall system. He uses a Shelbourne stripper header when combining to leave tall stubble in the field. One of the best ways to manage crop residues is to leave the stubble where it grew.

"Winter wheat is an important part of his operation," adds Nelson. "Snow captured by the tall stubble left behind the stripper header protects this crop and maximizes moisture potential in the spring."

Helfer says that coulters are useful in places where straw has been laid down over the winter. He is currently considering placing coulters on the Friggstad seeder he uses to seed the majority of his farmland.

Contact: Grant Nelson
(403) 742-7500

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Proposals sought for writing the Reference Manual for Alberta Land Agents

Alberta Environment is presently looking for individuals of firms that are interested in completing the writing of the Reference Manual for Alberta Land Agents. Interested parties can obtain an information package about how to submit a proposal by contacting:

Alberta Environment
Land Agents Licensing
2nd floor, South Petroleum Plaza
9915 - 108 Street
Edmonton, AB T5K 2G8

or by phoning Erica Weber at (780) 415-4600 or Gerry Kress at (780) 415-4619 or by e-mailing <**erica.weber@gov.ab.ca**> or <**gerry.kress@gov.ab.ca**>. Information packages will only be available until 4:00 p.m., December 2, 1999.

Farmland values in Alberta

Farmland prices continued an upward trend in Alberta according to statistics gathered by the Farm Credit Corporation (FCC). The value of irrigated land in southern Alberta remains strong. This is particularly due to the demand from specialty crop and livestock producers. Low commodity prices in both grain and oilseed crops resulted in a decreased demand for land in some areas of the province. Urban fringe districts continue to experience strong demand. The FCC indicates that land prices in central and northern Alberta are still being influenced by purchasers relocating from outside of the area. For further information, contact the western office of FCC at (306) 780-3490 or visit the webpage on-line at <**www.fcc-sca.ca**>.

England working on a Super Strawberry

Horticulturists have found the genes that control the taste, smell and color of strawberries and claim they can create sweeter tasting super strawberries – naturally. Researchers at Horticulture Research International in Warwickshire, English Midlands, intend to develop the super strawberry through traditional methods of plant breeding. The scientists have discovered a protein that delivers sugar into fruit cells. As the fruit ripens, the protein allows more sucrose sugar to be deposited in large chambers within the cells. They will be working to make the gene which makes the protein over-express, raising the amount of sucrose in the fruit and resulting in a sweeter strawberry. For more information, contact the Horticulture Research International, Research Station, Stratford-upon-Avon, Warwickshire, UK, CV38 9EF, or phone +44-1789-470382.

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December 6, 1999

Horse breeders and owners conference

Each year in Alberta, the horse industry section of Alberta Agriculture, Food and Rural Development organizes the ***Alberta Horse Breeders and Owners Conference***. The 2000 conference is being held on January 7, 8 and 9, 2000 at the Capri Centre in Red Deer. This premier horse conference is the only one of its kind in Canada and is conducted by the Horse Industry Section of Alberta Agriculture, Food and Rural Development, the Alberta Quarter Horse Breeders Group and the Canadian Thoroughbred Horse Society - Alberta Division with major sponsorship from the Alberta Society for the Prevention of Cruelty to Animals.

"The 2000 conference features 13 internationally recognized speakers," says Les Burwash, manager of equine programs with Alberta Agriculture. "The excellent program of speakers includes: Dr. Doug Antczak, professor of equine medicine at Cornell University; Patti Colbert, director of development for the Alberta Quarter Horse Association Foundation; Bill Collins, the Master Horseman from Calgary; Christy Janzen, accomplished endurance rider, gold and silver medalist at the Pan Am Challenge; Dr. Stephanie Valberg, equine researcher at the University of Minnesota and recognized authority on tying-up; and, Dr. Lori Warren, who has a doctorate in equine nutrition and exercise physiology at the University of Kentucky."

Topics included in the agenda are:

- Starting the Young Horse Correctly
- Competing on the International Level
- What and When You Feed may be Critical to Performance
- Tying-Up in Horses; Do Vaccines Work?
- Efficacy of New Vaccines
- Antibiotic Resistance and the 'Problem Mare'. Are We Part of the Problem?
- The Maternal Grandsire Effect
- Transporting Performance Horses
- What to do when there is an Accident Hauling Horses
- Computer and Manual Bookkeeping for Horse Farms/ Businesses

The conference is arranged so that attendees can follow four streams of interest – Arabian, Quarter Horse, Thoroughbred and all breeds. While many follow the program designed for a particular breed preference, conference participants can attend any of the sessions, and will receive the printed materials from all sessions.

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The program starts with a wine and cheese reception on Friday, January 7 at 7:00 p.m. Saturday and Sunday's sessions begin at 8:40 a.m.

Conference registration is $75 per person. For more information about the 2000 conference, contact the horse industry branch in Airdrie at (403) 948-8532 or in Edmonton at (780) 415-6107. Government numbers are toll-free by dialing 310-0000 first.

Contact: *Les Burwash*
(403)948-8538

Poinsettia

Christmas is a time of age old traditions like the Christmas tree, turkey, mistletoe and of course, the poinsettia. This native of Mexico is relatively new to Christmas traditions. It was introduced into the United States in 1895 by Joel Poinsett. Since its introduction, poinsettia breeding programs have resulted in an assortment of colors. Albertans can chose plants that are pink, cream, white and white and red variegated, as well as the traditional red poinsettia.

"Once you've chosen the perfect poinsettia, a little extra care is necessary. Moving live plants on cold, winter days can be tricky, but a little planning will make the trip less traumatic for the plant," says Shelley Barkley, information officer at Alberta Agriculture, Food and Rural Development's Crop Diversification Centre South. "Make the stop for the plant the last one before going home and have the plant wrapped in paper, a better insulator than plastic. In the warm car, avoid the spot on the floor of the front seat right by the heater, as you could arrive home with a cooked poinsettia."

Once home, quickly move the plant from the car into the house. Unwrap the plant as soon as possible, leaving it in the sleeve for several hours will cause the leaves and bracts to be pointed upwards and in some cases they will not return to normal.

Pick the spot in the home for the poinsettia with care remembering that they thrive in a bright, direct light in the winter. Low light levels will cause the leaves to yellow and drop. The average home temperatures (15-21°C) are fine, but drafty spots like window sills or hot spots, sitting on the T.V. or in front of the heat ducts, can make the whole plant droop. The window sill can be a bad spot for another reason, when the curtain is closed at night, there is a chance the plant will freeze.

"Water the poinsettia when the soil is dry to the touch, never let it dry completely," says Barkley. "Shrivelling leaves is a sure sign the plant is too dry. Water thoroughly, allowing the excess water to drain from the pot, then dump the drip tray. The decorative foil around the pot holds water so remove the foil or put holes through it at the pot's drainage holes, so the excess water can drain away. Soggy soil can cause the color to fade in patches on the bracts and leaves."

The poinsettia is often tossed out at the end of the festive season or after the bracts fade, but they can be kept around and re-flowered for next Christmas. Once the bracts age and turn a muddy green, trim the plant back to 20 cm tall, and grow it as a foliage plant. Poinsettias are triggered to flower by short day lengths, they need total darkness for 12 hours every day until they start to show color in the bracts. Any light, whether that be from a reading light or street light will disturb the process.

"Red poinsettias still out sell the newer cultivars," adds Barkley. "However, the newer types are gaining on the reds. The real advantage, is that there is a poinsettia color and growth form for every holiday decorating scheme. It's easy to make a Poinsettia the focal centre of a decorating scheme, so be creative and have a little fun, too."

Contact: *Shelley Barkley*
(403) 362-1305

Options for handling feeding pen runoff

Well designed pens for backgrounding feedlots or finishing feedlots are built to keep cattle and the pens clean. They should have good slopes to provide positive drainage for spring snow melt and summer rain storms.

"Muddy pens increase feeding costs," says Robert Borg, agricultural engineer with Alberta Agriculture, food and Rural Development, Red Deer. "Four to eight inches of mud will increase feed requirements by 15 per cent and 12 to 24 inches of mud will increase feed required by 25 per cent."

Dirty pens can increase feeding costs for 100 steers in a muddy lot by $1000 per month. Every four muddy days adds one day to the total time spent in the feedlot. Also, animals at the plant are docked for 'tag', mud and manure caked on the cattle.

"Cattle build up a manure pack in the pen," says Borg. "Compaction under the cattle's hooves in the soil manure layer creates impervious gleyed layer or hardpan layer of soil. This impervious layer protects ground water by preventing infiltration. It's important to protect and maintain this gleyed layer when pens are being cleaned. If pens are empty in the summer or animal density is too low, the gleyed layer may not be reliable. In this case make sure to build on a good compacted clay soil.

The manure pack also affects runoff behaviour. When rain falls on the manure pack nothing runs off until the manure pack is saturated. After up to a 24 hour delay, runoff begins. With short intense rain storms, there is less time for water to

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soak in and runoff starts sooner. Anywhere from 15 to 40 per cent of the annual precipitation will run off the feeding pens.

"Well designed feeding pens are built on a two to four per cent slope, with a feeding fence or feed bunk located on the high, dry side of the pen," adds Borg. "The runoff from snow melt or rain storms drains out of the pen in to a drainage channel located outside of the pen. The runoff is high in organic matter and contains nitrogen, phosphorus, potassium, and salts."

Runoff can be irrigated on to cropland or grassed areas (grain, straw, and hay). The nutrients and some of the salt can be absorbed by the crop. When the plants are harvested, the nutrients will be removed from the system rather than flow into surface water. The type of irrigation will depend on the scale or size of the feedlot and the type of feedlot – whether it is used year round or just during the winter.

Some example of how to use runoff:

- **Large feedlots** – collect the runoff first in a sedimentation ditch, holding the runoff for up to 30 minutes to allow larger manure particles to settle out. Land-spreading the nutrient rich solids on cropland is an effective way to use solid wastes and reduce the cost of fertilizing. The water from the sedimentation ditch flows to a catch basin. Depending on management and design of the system, the catch basin can hold the annual runoff, the winter snow melt, or a 24 hour rain storm expected only once every 30 years. After the catch basin, the runoff is irrigated on to cropland where the nitrogen, phosphorus, potassium, and salt is harvested as grain and straw.
- **Medium feedlots** – may look at several options that all include a sedimentation ditch and usually some controlled storage of runoff. The runoff is distributed to a contained infiltration area. Backflood irrigated grasslands or control flooded meadows are one option where the runoff water is held and allowed to infiltrate the soil. High flow rate overland flow of water across vegetation is another method of irrigation. Vegetated filter strips, either grassed or treed areas, are another option. Again, the key is to use the nutrients before they can flow into streams or bodies of water.
- **Small feedlots** – of less than 100 head or one acre may be able to use a system of direct runoff to pasture or grassland if they are well away from streams and water bodies.

"Each site will be unique depending on soils, topography, climate and the relative risk of water contamination at each location," says Borg.

Design information for feedlot planning may be found in the publication ***Alberta Feedlot Management Guide***. Cost of the guide is $99 (includes shipping and handling). Copies can be obtained by contacting the Feeder Associations of Alberta Ltd., Box 4190, Barrhead, Alberta T7N 1A2, or phone the Association at (780) 674-5381, fax (780) 674-6969. Copies are also available at Alberta Agriculture district offices.

Contact: *Robert Borg*
(403) 340-5323

Safe snow made from food processing wastewater

Wastewater disposal is a challenge for Alberta's large food processors. They use lots of water and produce lots of wastewater, rich in organic matter and nutrients. While food processing wastewater is ideal for irrigating crops; storing and handling that wastewater until summer irrigation can be a challenge and expensive. Alberta Agriculture, Food and Rural Development has spent two winters intensively testing a new Canadian treatment system developed by Delta Engineering, Ottawa, on food processing wastewater. Neil MacAlpine and Jamie Wuite, with the conservation and development branch, Alberta Agriculture, concluded that Delta Engineering's Snowfluent™ technology is environmentally safe to treat food processing wastewater. It also opens a new season, winter, to apply wastewater to crop land.

"Treating rather than storing food processing wastewater through the winter is an advantage," says MacAlpine.

Nutrient rich wastewater in lagoons is a fertile environment for decomposition and odours. At spring breakup, odours are particularly strong when all the offensive gases produced during the winter under the lagoon's ice cover are released at once. This decomposition in lagoons through the winter can be avoided by using the Snowfluent™ system on wastewater fresh from the food processing plant.

Snowfluent™ makes a special version of man-made snow from wastewater. Snowfluent™ systems treat municipal wastewater in Swift Current, Saskatchewan, Westport near Ottawa and Carrabassett Valley, Maine. "A plant at Mars Hill, Maine, is entering its third year of successful operations treating wastewater from a potato processing plant," says Jeff White, president of Delta Engineering.

"The designers of Snowfluent™, Delta Engineering, provided a portable treatment plant during the winters of 1997 and 1998 for testing on malting plant wastewater from Westcan Malting, Alix," adds MacAlpine. "Alberta Agriculture, with the cooperation of the Alberta Research Council in Vegreville, tested the environmental impacts of the Snowfluent™–treated man-made snow on air quality, surface and groundwater quality and soil quality."

The 1997 tests confirmed that normally soluble nutrients like phosphorus and nitrogen compounds formed much less soluble compounds at snow-making and did not re-dissolve at snowmelt. Highly soluble components like sodium and

Cont'd on page 4

potassium were highly concentrated in the early runoff and then dropped rapidly to low levels through the bulk of the snowmelt. Snowfluent™ was highly effective at killing pathogens, desalinizing water and removing nutrients.

The 1998 production-scale test unearthed an odour issue. Strong odours moved off the snow-making site when snow was made from lagoon water that had been under ice for three months. In 1997, odours were limited to the snow-making area when wastewater fresh from the malting plant was treated. Researchers concluded that odours can be limited to the snow-making site if decomposition time in the lagoons is kept short or other odour treatment techniques are applied to the lagoons.

"The groundwater impacts from the 1998 test were limited to increases in sodium, potassium and dissolved organic carbon in the immediate area of the snow piles," says MacAlpine. "This is a 'worst-case' result since irrigation guidelines were not met by the wastewater (high salts), by the site's soils (pea gravel) and groundwater levels (less than 1.0 to 3.0 metres). The site was protected by a clay layer, 1.5 to 4.5 metres below the coarse sands. The site was optimum for detecting groundwater impacts in a single season. If the wastewater and site meets wastewater irrigation guidelines, Snowfluent™ is a sustainable land application system for forages. A second year crop of alfalfa responded dramatically to the additional moisture. Alfalfa under snow piles caught up with the rest of the crop two weeks after the piles had melted."

Alberta Agriculture researchers have produced two brochures and a summary report that presents their findings. The brochure, ***Freezing Cleans Food Processing Wastewater*** is available from the Alberta Food Processors Association (780) 444-2272. A second brochure, ***Freezing Process Benefits Hog Manure Treatment*** is available from the Alberta Pork Producers Development Corporation (780) 474-8288. The report, ***Snowfluent™ Treatment of Food Processing Wastewater: Summary Report*** is available from the Alberta Agriculture Research Institute (780) 427-1956.

Contacts: Neil MacAlpine, P. Eng. – Alberta Agricultue
(780) 427-3779
neil.macalpine@agric.gov.ab.ca

Jeffrey White, P. Eng. – Delta Engineering
(613) 521-0348 or 1- 800-805-5550
jwhite@deltaeng.ca

Critters on the move

This is the time of year when Albertans start seeing rodents such as mice, muskrats and other non-hibernating wildlife more often than other times of the year. It is also the time of year many people report seeing rats, or at least what they believe to be rats.

"Most native rodents, like ground squirrels, pocket gophers and muskrats, have raised their family of several offspring by late fall and, like human beings, the youngsters are eager to seek a life of their own," says John Bourne, vertebrate pest specialist with Alberta Agriculture, Food and Rural Development. "This is where nature takes a slight bend in reasoning. In searching for their new territory, many of these naive animals wind up in some of the most unlikely, and sometimes amazing and bewildering locations. A farmer near Camrose found a mid-size rodent in the cab of his combine, and a family shopping in High River reported a gopher-like creature with a long tail scurrying across the busy shopping mall parking lot. Many motorists report seeing rat-like animals at night crossing the road in the beam of the headlights."

These are not unusual sightings of juvenile rodents, but to the casual observer they could be rats simply because no other 'normal' rodent would behave in such a manner. Because most Albertans do not know what a rat looks like, these sightings usually result in a rat sighting being reported.

"Norway rats are very secretive, shy animals and will only be seen if they are dislodged from their nest or hiding place," says Bourne. "Rats are also quite small compared to other rodents. An adult Norway rat weighs in at about 3/4 of a pound and measures 15 to 20 cm (6 to 8 inches) in length and has a tail 12 to 16 cm (5 to 7 inches) long. It is the tail that distinguishes rats from other rodents. Not as long as its body, a Norway rat's tail is tapered from base to tip, cylindrical or rope like in shape and covered with very short bristles and scale rings. A rat's feet are quite small, unwebbed, bare and pinkish in colour."

Norway rats do not hibernate and, therefore, need to have a reliable source of high quality food and cover to survive the cold prairie winter.

Rats accidentally transported by truck or rail into the province can arrive alive and in reasonably good health, however, most do not survive because they are unable to find adequate food or shelter before they starve or die from exposure. Nonetheless, any rat, dead or alive, seen on board any type of conveyance in Alberta should be reported to the Alberta Agriculture for appropriate follow-up action.

As transportation and commerce become more globalized we can expect to see more incidents of accidental importation of rats into Alberta.

Albertans are very conscientious about our rat-free status and are quick to report rat sightings to the authorities, whether to the by-law officer, police or public health, the report eventually reaches Alberta Agriculture.

Alberta has a toll free Rat Control Hotline that can be called to report sightings or concerns. Dial 310-0000 and then 853-8225.

Contact: John Bourne
(780) 853-8225

Agri-News Briefs

A clean environment plays a role in consumer perception

An Environics International survey of Japanese consumers in the summer of 1999, found that 44 per cent were confident or very confident in the safety of foods from Canada. The main reason for their confidence was their perception that Canada had a clean environment and lack of pollution. High food safety standards ranked third. Only 12 per cent of those confident in Canada as a supplier of safe food cited high food safety standards compared to 32 per cent who cited Canada's clean environment. Of the 54 per cent of Japanese consumers who were not confident of the safety of Canada's food, the number one reason cited by 29 per cent was pesticides, hormones, antibiotics and chemical concerns. The next highest concern mentioned by 9 per cent of these consumers was low food safety standards. Marketing messages into the new millennium will continue to promote Canada's food imports as coming from a clean environment where pesticides and other chemicals are used less than with other competitors. For further information, contact Coreen Moroziuk, Alberta Agriculture, Food and Rural Development, policy secretariat branch, (780) 422-2263.

"One-stop-shopping" for Alberta Agriculture's priced videos and CD-ROMs

The Multi-Media Branch now sells all of its priced materials through the department's Publications Office. "Being able to purchase all videos and CD-ROMs from one area will make it easier for our customers," says multi-media branch information officer, Ken Blackley. In total, the Publication's Office will now be selling over 140 video and CD-ROM titles, including the two latest CD-ROMs, ***Herbs and Spice*** and ***The Insect Identification Program***. To help promote videos and CD-ROMs, multi-media has issued a new sales catalogue. The new catalogue lists every video and CD-ROM for sale and includes descriptions of many of the titles, all the order information needed and an easy-to-use order form. Copies of the new sales catalogue are available upon request by writing: Multi-Media Branch, Alberta Agriculture, Food and Rural Development, 7000 - 113 Street, Edmonton, AB T6H 5T6, or by calling (780) 422-3951. Videos and CD-ROMs may be ordered by calling the Publication's Office toll-free at 1-800-292-5697 (Canada only) or (780) 427-0391 in Edmonton.

Organic food market opportunities

A 100 page study identifying market opportunities and issues relevant to the Alberta domestic organic agriculture and food production (processing) industry includes observational shopping results, expert interviews, competition findings, distribution channels and makes recommendations for industry and government. Market research completed in the ***Study Of The Organic and Natural Food Market – Opportunities In The Pacific Northwest***, was designed to determine the most evident opportunities for Alberta organic and natural food producers and processors for the short-, medium-, and long-term. It also includes a list of contacts, selected listing of brokers and distributors of organic food products, common mistakes made by new companies or those involved in new markets, and the most frequently asked questions that Alberta food companies should be prepared to answer. The study was completed in partnership between Serecon Management Consulting Inc. (Alberta), and Globalwise Inc. (Washington) and is available by contacting Ken McCormack, marketing and economic division, Alberta Agriculture, Food and Rural Development, at (780) 427-4241. For callers outside the Edmonton area, this number is toll free by dialling 310-0000 first.

Coming Events

December

Alberta Dairy Control Board's Industry Meetings
December 6
Lacombe Memorial Centre
Lacombe
Contact: Maryann Urbanowski
(780) 361-1231

Alberta Cattle Commission Annual Meeting
December 6 - 8
Coast Terrace Inn
Edmonton
Contact: Alberta Cattle Commission (Karen)
(403) 275-4400

Farm Accounting Using Quickbooks
December 7 - 9
Provincial Building
Taber
Contact: Bradley Smith
(403) 223-7907

Alberta Pulse Growers Commission, Zone 2 Annual Meeting
December 7
222 Main Street
Three Hills
Contact: Dorothy Stewart
(403) 443-8525

Management Training for the Swine Industry: Issues in Agricultural Management
December 7 - 8
Olds College
Contact: Olds College
Phone: 1-800-661-6537

Estate Workshop
December 7
Provincial Building
Lac La Biche
Contact: Betty Lyzaniuk
(780) 632-5400

Alberta Dairy Control Board's Industry Meetings
December 7
Rendez Vous Centre - 9913 - 104 St
Morinville
Contact: Maryann Urbanowski
(780) 361-1231

Bison Expo '99: Sale and Show
December 8 - 9
AG Corral
St Paul
Contact: Richard
(780) 724-2215

Cereal and Oilseed Market Outlook
December 8
E.I.D. Conference Room
Brooks
Contact: Lee Melvill
(403) 362-1212

Western Canadian Grazing Conference
December 9 - 10
Saskatoon, SK
Contact: Grazing & Pasture Technology Program
(306) 757-9499

Pork Producers Annual Meeting
December 9
Ramada Inn
Edmonton

Alberta Canola Producers Commission Meeting
December 9
Falher Arena
Falher
Contact: ACPC
(780) 454-0844

Alberta Dairy Control Board's Industry Meetings
December 9
Royal Canadian Legion 5241 - 46 St
Olds
Contact: Maryann Urbanowski
(780) 361-1231

Alberta Canola Producers Commission Meeting
December 10
Fairview Legion Hall
Fairview
(780) 338-2271

Organic Workshop spnsored by OCIA Alberta #1
December 10 - 11
Westlock Inn
Westlock
Contact: Don Wagner
(780) 892-2733

Winter Wheat / Triticale / Fall Rye
December 10
Heritage Inn
Brooks
Contact: Gordon Frank
(403) 362-1212

Alberta Dairy Control Board's Industry Meetings
December 10
Best Western Denham Inn
5207 - 50 Ave
Leduc
Contact: Maryann Urbanowski
(780) 361-1231

Alberta Winter Wheat Producers Commission Annual Meeting
December 14
Sven Ericksen's Restaurant
Lethbridge,
Contact: Sharol Siewert
(403) 328-0059

Direct Seeding Advantage for Industry
December 15
Olds College
Contact: Peter Gamache
(780) 427-3361

January, 2000

3rd Northwest Direct Seed Cropping System Conference and Trade Show
January 4 - 6, 2000
Pendleton, Oregon
Contact: Organization Committee
(509) 547-5538

Alberta Horse Breeders and Owners Conference
January 7 - 9, 2000
Capri Centre
Red Deer
Fee: $75 per person
Contact: Les Burwash
(403) 948-8538

Management Training for the Swine Industry: Herd Health
January 11 - 12, 2000
Olds College
Contact: Olds College
Phone: 1-800-661-6537

Western Canadian Wheat Growers Association Annual Convention
January 11 - 14, 2000
Velas Vallarta Grand Suite Resort
Puerto Vallarta,
(306)354-2377
Contact: Warren and Paula Jolly
(306)354-2541

Livestock Care Conference (Animal Welfare in Europe, North America and Alberta)
January 12, 2000
Delta South Hotel
Edmonton
Contact: Alberta Farm Animal Care
(403) 932-8050

Riparian Habitat Management Public Meeting
January 12, 2000
W.ER.G Glenreagh Hall
Barrhead

Livestock Care Conference: Animal Welfare in Europe, North America and Alberta
January 12, 2000
Delta South
Edmonton
Contact: AFAC office
(403) 932-8050

Farm Machinery Economics
January 12 - 14, 2000
Lethbridge
Contact: Bradley Smith
(403) 223-7907

Farm 2000
January 12, 2000
Community Centre
Strathmore
Contact: Scott Mees
(403) 934-3355

Wild Rose Agricultural Producers Annual Meeting
January 13 - 14, 2000
Red Deer Lodge
Red Deer
Contact: WRAP
(780)451-5912

8th Annual National No-Tillage Conference
January 13 - 15, 2000
Des Moines, Iowa
Contact: Organizing Committee
(414) 782-4480

Association of Alberta Co-op Seed Cleaning Plants Ltd Annual Meeting
January 13 - 15, 2000
Westin Hotel
Edmonton
Contact: Bill Witbeck
(403) 782-4641

Farm 2000
January 13, 2000
Taber Community Centre
Taber
Contact: Brian Hunt
(403) 223-7907 or 7908

Annual 4-H Leaders Conference
January 14 - 16, 2000
Red Deer Lodge
Red Deer

Banff Pork Seminar
January 18 -21, 2000
Banff Centre for Conferences
Banff
Contact: Banff conference office
(780) 492-3236

Quickbooks for Farm Managers
January 18 - 20, 2000
Agriculture Centre
Airdrie
Contact: Ted Darling/Russie Anderson
(403) 948-8524/948-8503

Finding New Markets & Partners For Your Meat Products in Food/Service
January 18 - March 7, 2000
Provincial Building
Westlock & Athabasca, AB
Contact: Kerry Engel
(780)349-4465

Delia Conservation Club Annual Workshop
January 18, 2000
Delia
Contact: Rick Taillieu
(403) 556-8235

Agronomy Conference 2000
January 19 - 20, 2000
Delta, Edmonton South Edmonton
Contact: Jill DeMulder
(780) 422-0917

2000 Canadian Alfalfa and Forage Seed Conference
January 20 - 22, 2000
Fantasyland Hotel
Edmonton
Contact: Calvin Yoder
(780) 864-3597

Western Range Research Seminar
January 23 - 25, 2000
Lethbridge Lodge Hotel
Lethbridge
Contact: Walter Willms
(403) 317-2218

Canola Production Day
January 25, 2000
Heritage Inn
Brooks
Contact: Gordon Frank
(403) 362-1212

Provincial Ag Service Board Conference
January 25 - 27, 2000
Coast Terrace Inn
Edmonton

Alternative Livestock Symposium
January 26, 2000
Community Hall
Westlock
Contact: Kerry Engel
(780)349-4465

Land Crop Management Using Precision Farming Software (Farm Trac)
January 26 - 28, 2000
Lethbridge
Contact: Bradley Smith
(403) 223-7907

Crop Rotation Workshop
January 26, 2000
Youngstown Community Hall
Youngstown
Contact: Kelsey Spicer
(403) 854-444

Canadian Seed Growers Association – Alberta Branch
January 26 - 28, 2000
Westin Hotel
Edmonton
Contact: Bill Witbeck
(403)782-4641

National Beef Symposium
January 26 - 28, 2000
Lethbridge

Millennium Reunion
January 28, 2000
Three Hills Community Centre
Three Hills
Contact: Russel Horvey or Dorothy Stewart
(403) 443-8525

February, 2000

Estate Workshop
February 1, 2000
Room 207, Provincial Building
Bonnyville
Contact: Vegreville District Office
(780) 632-5400

Farm Accounting Using Quickbooks
February 1 - 3, 2000
Claresholm
Contact: Bradley Smith
(403) 223-7907

Canadian Produce Marketing Association Annual Conference
February 2 - 5, 2000
Banff Springs Hotel
Banff

Pulse Growers of Albeta Annual Meeting
February 2 - 4, 2000
Red Deer

FarmTech Workshop – Sustainable Crop Production Management
February 2 - 4, 2000
Westerner Park
Red Deer
Contact: Patt Evans
(403) 572-3600

Canola Annual Meeting
February 2 - 4, 2000
Red Deer

Gateway Research Organization Annual General Meeting
February 3, 2000
Glenreagh Hall
Barrhead

Canadian Honey Council Annual Meetng
February 3 - 6, 2000
Radisson Hotel
Saskatoon, Saskatchewan
Contact: Heather Clay
(403) 208-7141

Rimbey Womens' Conference
February 7 - 10, 2000
Rimbey

Farm Accounting Using Quickbooks
February 8 - 10, 2000
Lethbridge
Contact: Bradley Smith
(403)223-7907

Rimbey Women's Conference
February 9, 2000
Rimbey Community Centre
Rimbey
Contact: Donna Wight
(403) 843-2201

Winter Cereals Canada Inc. Annual Meeting and Conference
February 9, 2000
Regina Exhibition Park
Regina, Saskatchewan
Contact: David Struthers
(306) 782-8188

Direct Seeding; Sustainable Farming in the New Millennium
February 9 - 10, 2000
Regina Exhibition Park
Regina, Saskatchewan
Contact: Organizing Committee
(306) 695-4233

Finding Agreement on Difficult Issues
February 10 - 11, 2000
Grande Prairie, Alberta
Contact: Lynn Poole/Linda Pilsworth
(403) 578-3970 or 1-800-387-6030

Farm Machinery Economics
February 15 - 17, 2000
Provincial Building
Taber
Contact: Bradley Smith
(403) 223-7907

Management Training for the Swine Industry: Operational Environmental Management
February 15 - 16, 2000
Olds College
Contact: Olds College
1-800-661-6537

Finding Agreement on Difficult Issues
February 16 - 17, 2000
Edmonton, Alberta
Contact: Lynn Poole/Linda Pilsworth
(403) 578-3970 or 1-800-387-6030

Crop Rotation Meeting
February 17, 2000
Veteran Community Centre
Veteran
Contact: Grant Nelson
(403) 742-7546

Advanced Farm Accounting
February 18 - 22, 2000
Lethbridge
Contact: Bradley Smith
(403) 223-7907

Crop Rotation Meeting
February 18, 2000
Stettler Ag Society Building
Stettler
Contact: Grant Nelson
(403) 742-7546

Canadian Food and Beverage Show
February 20 - 22, 2000
Toronto International Centre
Toronto, Ontario
Phone: 1-800-387-5649

37th Annual Alberta Soil Science Workshop
February 22 - 24, 2000
Medicine Hat, AB

Weed Control Seminar
February 22, 2000
Three Hills Community Centre
Three Hills
Contact: Russel Horvey or Dorothy Stewart
(403) 443-8525

Excellence 2000 – Managing Excellence in Agriculture
February 23 - 26, 2000
Banff Springs Hotel
Banff
Contact: J. Wilson Loree
(403) 556 4213

Canadian Aerial Applicators Associaiton Annual Meeting
February 23 - 26, 2000
Jasper Park Lodge
Contact: Canadian Aerial Applicators Association
(780) 413-0078

Alberta Soft Wheat Producers Commission Annual Meeting
February 24, 2000
Lethbridge Lodge Hotel
Lethbridge
Contact: Alberta Soft Wheat Producers Commission
(403)328-1123

Finding Agreement on Difficult Issues
February 24 - 25, 2000
Lethbridge
Contact: Lynn Poole/LInda Pilsworth
(403) 578-3970 or 1-800-387-6030

Agritrend
February 28 - 29, 2000
Strathmore, AB

Poultry Producer Association Annual Meeting
February 28 - 29, 2000
Red Deer, AB

Farm Accrual Accounting Production Records Management
February 28 - 29, 2000
Lethbridge, AB
Contact: Bradley Smith
(403) 223-7907

March, 2000

Farm Machinery Economics
March 1 - 3, 2000
Legion Hall
Foremost
Contact: Bradley Smith
(403) 223-7907

Agritrend
March 1, 2000
Red Deer, AB

Finding Agreement on Difficult Issues
March 2 - 3, 2000
Calgary, Alberta
Contact: Lynn Poole/Linda Pilsworth
(403) 578-3970 or 1-800-387-6030

Agritrend
March 2, 2000
Lloydminster

Agritrend
March 3, 2000
Edmonton

AgExpo
March 4, 2000
Lethbridge

Western Canadian Dairy Seminar
March 7 - 10, 2000
Capri Centre
Red Deer
Contact: Joanne Morrison
(780) 492-3236

Organic Workshop
March 8, 2000
Westlock Memorial Hall
Westlock
Contact: Kerry Engel
(780)349-4465

Pork Congress
March 15 - 16, 2000
Red Deer

Alberta Jersey Cattle Association Annual Meeting – Hosting Jersey
March 15 - 19, 2000
Exhibition Grounds
Calgary

Alberta Pork Congress
March 15 - 17, 2000
Westerner
Red Deer
Contact: Alberta Pork Congress
(403) 244-4487

Management Training for the Swine Industry: Stockmanship/ Behaviour
March 21 - 22, 2000
Olds College
Olds
Contact: Olds College
1-800-661-6537

April, 2000

International Congress on Irrigation Systems Transfers
April 2 - 9, 2000
El Mega Cid
Mazatlan, Mexico
Contact: Mr. Luis A. Gomez Ugarte

1st International Symposium on Antler Science and Product Technology
April 9 - 12, 2000
Eric Harvie Theatre, Banff Centre
Banff
Contact: Dr. Robert Hudson
(403)492-2111

1st International Symposium on Antler Science & Products
April 9 - 12, 2000
Banff

Horse Summit 2000
April 14 - 16, 2000
Keystone Centre
Brandon, Manitoba
Contact: Norm Luba
(502) 245-0425

June, 2000

Gourmet Products Show
June 4 - 7, 2000
San Francisco, CA
Phone: (415) 344-5171

Agricultural Biotechnology International Conference
June 5 - 8, 2000
Sheraton Centre
Toronto, Ontario
Contact: Sharon Murray
(877) 925-2242

NFRBMEA National Conference
June 11 - 15, 2000
Enid, Oklahoma, USA

Pasture School (Western Forage/Beef Group)
June 13 - 15, 2000
Lacombe Research Centre
Lacombe
Contact: Cathy Hendrickson AAFRD/WFBG
(403) 782-8030 or 1-800-340-9178

Manure Management 2000
June 26 - 28, 2000
Coast Plaza Hotel
Calgary
Contact: Michelle Follensbee/Darcy Fitzgerald
(780) 415-0828/(403) 340-4822

July, 2000

National Conference for the Advancement of Women in Engineering, Science & Technology
July 6 - 8, 2000
Battery Hotel & Suites
St. John's, Newfoundland
Contact: Carolyn J. Emerson
(709) 737-7960

Calgary Stampede
July 7 - 16, 2000
Stampede Park
Calgary

6th International Symposium on the Biosafety of Genetically Modified Organisms
July 8 - 13, 2000
Delta Bessborough Hotel
Saskatoon, Saskatchewan
Contact: Bill Anderson
(306) 975-1939

August, 2000

International Bison Conference
August 1 - 4, 2000
Mayfield Inn
Edmonton
Contact: Phil Staden, Convention Chairperson
(403)763-2107

World Poultry Conference
August 20 - 25, 2000
Palais Des Congres
Montreal, Quebec
Contact: Events International Meeting Planners
(514) 286-0855

October, 2000

World Dairy Expo
October 4 - 8, 2000
Dane County Expo Center
Madison, Wisconsin
Contact: World Dairy Expo
(608) 224-6455

November, 2000

Farmfair International 2000
November 4 - 12, 2000
Northlands AgriCom
Edmonton
Contact: Northlands Park
(780) 471-7210

Canadian Western Agribition
November 19 - 26, 2000
Exibition Park
Regina, Saskatchewan
Contact: Canadian Western Agribition
(306) 565-0565

January, 2001

Banff Pork Semiar
January 23 - 26, 2001
Banff Centre
Banff
Contact: Banff Pork Semiar
(780) 492-3236

July, 2001

XIV International Plant Nutrition Colloquium
July 28 - August 3, 2001
University of Hannover
Hannover, Germany
Contact: IPNC Secretariat
Phone: +49-(0)511-762-2626

November, 2001

Canadian Western Agribition
November 18 - 25, 2001
Exhibition Park
Regina, Saskatchewan
Contact: Canadian Western Agribition
(306) 565-0565

Coming agricultural events notice

1. Do you know of any provincial (Alberta), national or international agricultural meetings, conferences or conventions coming in 2000 or 2001. Please state the **name** of the event(s):

2. **When** is the event being held?

3. **Where** is the event being held? Include city or town; hotel or convention centre, if known:

4. Please give **name**, **city** or **town**, and **phone number** of a **contact person** for each event listed:

5. This form has been **completed by** what organization? Please include your phone number:

Please return this form by Feburary 21, 2000 to:

Lee Anne Palutke, Agri-News Editor
Communications Division
J.G. O'Donoghue Building
7000 - 113 Street
Edmonton, Alberta T6H 5T6
Phone: (780) 422-6958
Fax: (780) 427-2861
E-mail: agrinews@agric.gov.ab.ca

"Coming agricultural events" **is published quarterly in Agri-News. The next list will be released March 6, 2000.**

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Agri-News

December 13, 1999

Producer networking opportunity at Earth To Table

Organic and natural producers from around the province displayed their products with pride in the opulent surroundings of the Hotel MacDonald's Empire Ballroom on November 30, 1999. No corner was cut and no detail left to chance when the products from some of Alberta's finest natural and organic producers were prepared and presented by three of Alberta's top Executive Chefs.

"This Earth To Table showcase was the first joint effort between Earth To Table, an Alberta organization of producers and chefs, and the Prairies Chapter of Cuisine Canada, a national organization committed to raising the public's awareness of fine Canadian food and wine," says Colleen Biggs, Earth to Table representative. "In the past, Earth To Table has hosted several events in Calgary, but this is our first in Edmonton in hopes of regionalising the organization and involving more Edmonton area supporters of regional cuisine. The goal of the event was to create networking opportunities for Alberta producers with the hotel and restaurant industry. This networking helps farm families diversify and become more self-reliant and gives chefs access to fine regional products such as natural grass fed beef, pastured turkey and chicken, and other unique products such as certified organic potatoes, squash and heirloom tomatoes. It is a win-win situation for all involved."

There were several key individuals involved in organizing the event. Jennifer Cockrall-King, freelance food writer, Edmonton, oversaw the media promotion; David Garcelon, Executive Chef at the Jasper Park Lodge; Mario Mathieu, Executive Chef at the Hotel MacDonald; and, Michael Allemeir, Executive Chef at Calgary's Teatro Restaurant, coordinated and prepared the menu items. The Hotel MacDonald graciously donated the Empire Ballroom, the kitchen to prepare the food and the service and kitchen staff. Colleen Biggs coordinated producer involvement and food donations.

"The event couldn't have happened without the Alberta producers that donated product and attended the dinner," adds Biggs. "Many of these committed individuals are working hard to create and market value-added food products to consumers, chefs and retailers alike. This event gave them the opportunity to meet chefs, retailers and consumers face to face and talk about what they are doing on the land."

As well as hotel owners and restauranteurs, the event hosted other marketing company executives and several media personalities who, pens, cameras and microphones in hand got comments and opinions from those present.

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Alberta
AGRICULTURE, FOOD AND RURAL DEVELOPMENT

Some of the menu items included:

- Roasted Natural Pasture Fed Chicken Breast Marinated in a Garlic and Rosemary Mustard Seed Sauce
- Salad of Vine Ripened Heirloom Tomatoes, Extra Virgin Organic Canola Oil, Reduced Balsamic and Fresh Basil with Alberta Sheep's Milk Asiago Cheese
- Alberta Natural Lamb Braised in Heirloom Tomatoes, Okanagan Quince and Fennel served with a Caramelized Onion and Alberta St. Maure Rostie
- Roasted Garlic and Black Olive Studded Natural Grass fed Beef Striploin with Wild Mushroom and Birch Syrup Sauce
- Natural Grass fed Buffalo Carpaccio, Spicy Maple Aioli, Toasted Walnut Apricot Bread and Organic Quince Salad

Ken Petersen from Worldwide Specialty Foods, Calgary, a marketing company that handles countless products for Canadian producers says, "The event was well worth the trip. The presentation was marvellous and, of course, the products were fabulous. This event provided a pleasant opportunity to meet several Alberta producers that I've been meaning to contact all in one place and in a setting conducive to discussing and sampling their products."

"There are several other opportunities for involvement in the future," says Biggs. "Earth To Table is planning another two showcases for the year 2000, one in Edmonton and one in Calgary. The Prairie Chapter of Cuisine Canada is also hosting Northern Bounty IV at the Jasper Park Lodge in October of next year. This national food conference is expected to draw several hundred participants from across Canada, including many food writers and chefs interested in Canadian Cuisine."

At the Northern Bounty IV event, a Marketplace is planned to feature unique regional cuisine items from across the prairies. Anyone interested in participating are welcome to contact Colleen Biggs (403) 578-2404.

Contact: Mike Dolinski
(780) 422-4873

Colleen Biggs
(403) 578-2404

Organic conference in the UK

There's been a lot of interest in organic foods and grass fed livestock. Mike Dolinski, chair of the Alberta Organic Food Committee and organic marketing specialist with Alberta Agriculture, Food and Rural Development recently returned from an organic conference held in London, England, November 18 to 19, 1999.

"The organic food movement in the UK is being driven by the large retail food outlet, not health food and specialty stores," says Dolinski. "Organic is main-stream and the UK imports 70 per cent of its organic produce.

"Market opportunities for Alberta are organic beef, potatoes, feed grains and a small amount of durum wheat. Although there are issues related to acceptance of our standards by the European Union (EU), these will be overcome with time. Only two per cent of land in the UK is certified organic at this time, there is more than that in transition. Austria, Sweden, Finland and Italy are the countries where organic farming is expanding at the fastest rate, with 10 per cent of land in Austria currently certified organic. Approximately three million hectares are currently certified organic in the EU countries."

Alberta has 200 certified organic producers and processors, a number that has grown by 50 per cent over only the last five years.

"With the new Organic Standards, the requirements for being certified organic are much clearer to producers," adds Dolinski. "The demand for naturally grown, organic products is increasing at a very encouraging pace and Alberta is an ideal area to accommodate this expanding market potential."

Copies of the National Standard of Canada for Organic Agriculture are available by mail from the, Canadian General Standards Board Sales Centre, Ottawa, ON K1A 1G6; by e-mail <**ncr.cgsb-ongc@pwgssc.gc.ca**>; by phone to free at 1-800-665-CGSB (2427); or by fax (819) 956-5644. Individual copies are $48 plus GST.

For more information on the Canadian Organic Advisory Board (COAB), phone (403) 262-4640 or e-mail <**coab@cadvision.com**> the COAB internet site address is <**http://www.coab.ca**>.

Contact: Mike Dolinski
(780) 422-4873

Supplying the food service market with free-range and grass fed meats

While talking to executive chefs from six, high-end hotels, restaurants and catering businesses, Kerry Engel, rural development specialist-business with Alberta Agriculture, Food and Rural Development, Westlock, learned that many chefs are currently getting meat products and produce directly from farmers – and they want more. Most Executive Chefs can buy the products they want as they control the budget for the restaurant.

The food service and hospitality industry, also referred to as hotels, restaurants and institutions (HRI) is extremely diverse. Chefs in many of Alberta's high end restaurants are willing to support local producers and processors.

"A few meat products that the chef's specifically inquired about include free-range poultry and grass fed meats and ducks. They are especially interested in unusual, exciting and new specialty products," says Engel. "But, accessing food service is not as simple as raising an animal and knocking on

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a door. Products must be of top quality and freshness. The six executive chefs I talked with, stressed the importance of consistency, food safety, reliability of supply, delivery and price. They are willing to pay 10 per cent more for regional products if the supply meets their specifications – this includes: consistency, size, taste, ethics, price and packaging."

Albertans raising, pork, bison, pastured poultry, grass-fed beef, lamb or farmed fish, high-end food service may provide a viable marketing outlet. Starting January 14, 2000, an eight-session program on accessing the food service market entitled ***Finding New Markets & Partners for Your Meat Products in Food Service*** is being offered in two locations, Westlock and Athabasca.

The program will: offer information and advice on what the food service customer really wants and how producers can fill their needs; identify niche markets in food service; and, provide time and opportunity to meet key contacts and players in the food service industry. The course will help producers learn how to access the food service market and they will receive individualized coaching in the preparation of their marketing plan and developing strategies to assess challenges and obstacles.

Aside from the eight sessions, participants will receive six hours of private consultations per farm unit. Participants serious about accessing this market will be able to develop their marketing plans based on the contents of this program. For further information or to register, contact one of the rural development specialists-business:

Kerry Engel	Westlock	(780) 349-4465
Lori-Jo Graham	Claresholm	(403) 625-1445
Linda Hawk	Hanna	(403) 854-5500
Sharon Homeniuk	Stony Plain	(780) 963-6101
Tim Keating	Falher	(780) 837-2211
Morley Kjargaard	St. Paul	(780) 645-6301
Donna Fleury	Airdrie	(403) 948-8537
Janice McGregor	Morinville	(780) 939-4351
Leona Reynolds-Zayak	Vermilion	(780) 853-8101
Linda Hawk	Medicine Hat	(403) 529-3616
Lynn Stegman	Lacombe	(403) 782-3301
Jan Warren	Vulcan	(780) 485-2236
Marian Williams	Camrose	(780) 679-1210

Contact: Kerry Engel
(780) 349-4465

Horse conference highlights transport safety

Each year at the ***Alberta Horse Breeders and Owners Conference***, the Alberta Society for the Prevention of Cruelty to Animals (SPCA) sponsors the *Fred Pearce Memorial Speaker Series*. At the conference, being held on January 7 to 9, 2000 in Red Deer, the SPCA is supporting Dr. Catherine Kohn from Ohio State University Veterinary School in Columbus, Ohio, as their 2000 speaker.

"We are very pleased to have Dr. Kohn on our panel for the up-coming conference," says Les Burwash, head of equine programs, Alberta Agriculture, Food and Rural Development, Airdrie. "The topic Dr. Kohn will be speaking on is ***Transporting the Performance Horse***. Almost all horse owners, and especially performance horse owners have trailered or transported their horse at one time or another, some transport their horses to and from competitions on a regular basis. The subject of transporting is always of interest to owners as the safety and comfort of the horses are two of their main concerns."

Kohn is the leader of a recently formed roundtable transport study group. The group is researching into the factors involved in transport that can cause stress to the animals. Everyone talks about travel stress, but until all of the factors involved are known, remedies and improvements to equine transport may not rectify the situation. Researchers say that if they know the problems, they can develop ways to eliminate or at least lessen the effects of stress factors on horses during transport.

Standing in a horse trailer, usually with their head tied for safety, can be tough on a horse, even on short journeys. The stress is increased when the roads being travelled on are in less than optimum shape. Competitions can literally be lost, not in the ring, but on the trip getting to the ring.

Airway inflamation is also a big problem in transporting horses, this condition is commonly called shipping fever. Whether it is due to improper ventilation, bacterial contamination, the placement of the horses head, the way the horse faces in the trailer, or the pre-shipping health of a horse, shipping fever is something that the roundtable of equine researchers have looked into.

"Owners and breeders want their horses to arrive at their destination in top shape and ready to compete," adds Burwash. "That means safe transporting, taking into account everything from loading, to the conditions in the trailer with adequate ventilation, to the safe off-loading of the horse at the end of the journey. Dr. Kohn will discuss equine transport research findings to date and will share with Alberta horse breeders and owners the benefit of her experience and the information gleaned through the joint efforts of the study group.

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"Alberta has a growing population of sport horses that are involved in a variety of disciplines; dressage, endurance racing, hunter jumper, roping, barrel racing and thoroughbred racing, to name but a few. The conference is an opportunity for horse owners and breeders to meet, share information and listen to some enlightening presentations."

The 2000 conference features 13 internationally recognized speakers delivering a variety of presentations. The event is arranged so that attendees can follow four streams of interest – Arabian, Quarter Horse, Thoroughbred and all breeds. While many follow the program designed for a particular breed preference, conference participants can attend any of the sessions and will receive the printed materials from all sessions.

Conference registration is $75 per person. For more information, contact the horse industry branch in Airdrie at (403) 948-8533, or in Edmonton at (780) 415-6107. Government numbers are toll free by dialing 310-0000 first.

Contact: Les Burwash
(403) 948-8538

Holistic management training program

Holistic management considers humans, their economies and the environment as inseparable. It is a common sense decision-making framework that requires no specialized knowledge or elaborate technology to be applied to any environment or management situation. In short, it is a value-based decision making method.

"The only way ecosystems can be restored to their optimum state is through wholesale changes in the way decisions are made," says Randee Halladay. "To use holistic management, it's essential to first define the 'whole' under management. This includes the people directly involved; the resource base influenced; and, the money available or that can be generated from the resource base."

Once the whole is defined, a holistic goal must be set. All decisions will then be tested against the goal. Things to consider when setting the goal are: the quality of life desired by the people involved; what they must produce to sustain that quality of life; and, a description of the future resource base as it must be to sustain what is produced.

"Some of the factors that have to be kept in mind when practising holistic management are the community dynamics of plants and animals," adds Halladay. "The cycling of water, minerals and energy through the system are also a big part of the equation. The tools used are what will affect the resources in the environment. An open mind that considers all knowledge, intuitive or scientific, is imperative."

There are seven testing guidelines, or questions, used to test the use of a tool or proposed action. They are:

- **cause and effect** – does the action address the root cause of the problem? Consider the weakest link: does the action taken strengthen the weakest link in the chain of production? What about the social aspect? Could the action create a weak link in the chain of actions? Does the action address the weakest point in the biological life cycle of the organism?
- **marginal reaction** – what action provides the greatest return? Is there anywhere in the operation where the time, money and labor could be better spent with better results?
- **gross profit analysis** – what enterprises contribute the most to covering the overheads of the business?
- **energy/money source and use** – is the energy or money being used in the action derived from the most appropriate source in terms of the holistic goal?
- **sustainability** – if the action is taken will it lead toward or away from the optimum resource base described in the goal? What impact will it have on the water cycle, mineral cycle, energy flow and community dynamics?
- **society and culture** – if the action is taken, will it lead to the outcome of the goal desired or could it adversely affect the lives of any others?

"The final decision is seldom based on any one of the testing guidelines, but at the end of testing, when the picture is formed, it is easier to make a determination whether or not the use of a tool or action will lead to the intended goal," says Halladay.

Once a decision is made, and a course of action taken, a feedback loop of monitoring, controlling and re-planning should be established to keep the management on track to ensure progress toward the holistic goal.

A holistic management training program, ***Learn How to Plan for Profit While Restoring the Land and Caring for the People*** is being offered in Red Deer on January 17 to 21, 2000. The highlight of this training program is planning for profit while taking care of the people and improving the health of the land. The program, supported by the Farm Business Management Program, costs $1,050 (plus GST) per farm unit of up to four people. For more information or to register, contact Randee Halladay, toll free at 1-800-946-5476.

Contact: Randee Halladay
1-800-946-5476

New livestock welfare specialist for Alberta

Dr. John Church has been appointed to the position of Livestock Welfare Specialist, a newly created position within the Animal Welfare Branch, technical services division of Alberta Agriculture, Food and Rural Development.

"Church comes to the department from the private sector, where he managed a large game farm operation in southern Alberta as well as consulted to the oil and gas industry," says Ray Fenton, head of the Animal Welfare Branch, Alberta Agriculture. "He has experience with beef cattle, swine, poultry and alternate livestock species and is knowledgeable on welfare issues facing animal agriculture."

"We are very pleased and supportive of the Alberta Agriculture's progressive approach to animal welfare, an issue that is gaining world-wide attention," says Mike Hart, chair of Alberta Farm Animal Care and vice-chair of Alberta Egg Producers. "Leadership and expertise is needed to respond with quick and decisive action when industry issues are identified. With this appointment, Alberta Agriculture is taking a big step in that direction."

Church has a BSc in Animal Science at the University of Alberta, 1986-90, and an MSc in Applied Animal Behaviour at Dalhousie University, Halifax, 1990-92. His work with swine and poultry demonstrated that enhancing animal welfare on farms can improve farm productivity. Church obtained his PhD in Rangeland and Wildlife Resources at the U of A , 1993-96. His practicum involved investigating the impact of conventional and non-conventional calving, weaning and transport practices on the welfare of elk, bison and cattle.

Church will be commencing duties in Red Deer on January 3, 2000.

Contact:	*Ray Fenton*	*Dr. John Church*
	(780) 427-4615	*(403) 340-5359*

Agri-News Briefs

Foundations of costing a product

A new course, ***Foundations of Costing Your Food Product*** provides emerging or existing Agri-food processors an opportunity to review fundamental issues in product development and identify critical costs of production that effect selling price. The workshop emphasizes the product formulation/development process, basic costing and pricing principles, the importance of a solid business and marketing plan, and provides a basic understanding of wholesale/retail distribution systems. Participants receive a detailed manual and related materials. Workshop facilitators share real-life examples and encourage sharing of experiences among participants. Companies working on food product development projects will find this workshop both practical and informative. Interested businesses can choose either of the following dates:

- January 11, 2000 (registration deadline: January 7, 2000)
- February 8, 2000 (registration deadline: February 4, 2000)

These workshops will be held at the Airdrie Agricultural Centre, Airdrie. Cost of the workshop is $37.45 ($35.00 + $2.45 GST) and pre-registration is required. For more information or to register contact Suzanne Tenold, agri-food development specialist with Alberta Agriculture, Food & Rural Development, Airdrie, (403) 948-8504 or fax: (403) 948-2069.

Alberta Hall of Fame nominations sought

The Alberta Agriculture Hall of Fame was created to recognize individuals who have made significant contributions to the agriculture and food industry and to the quality of rural life in Alberta. Alberta Agriculture, Food and Rural Development is looking for nominations of Alberta farmers, ranchers and those who are involved in agri-business for induction into the Hall of Fame in 2000. People who have demonstrated leadership in farm, rural or commodity organizations, or the food industry are eligible for nomination. Their leadership must have benefited Alberta in a significant way. Candidates must be nominated by three people other than members of their immediate family. Organizations may also make or support nominations. Along with the three nominators, supporting letters from individuals and organizations are welcome. Nominations can be sent to:

Alberta Agriculture Hall of Fame
c/o Communications Division
J.G. O'Donoghue Bldg.
100A, 7000 - 113 Street
Edmonton, AB T6H 5T6

The deadline for nominations is March 15, 2000. The 2000 Alberta Agriculture Hall of Fame ceremony will be held in October in Edmonton. For further information, contact Lillian Chan, (780) 422-0492.

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Beekeeping survey

The 1999 beekeeping survey has been sent out to beekeepers in Alberta. The survey will help generate the 1999 estimate of honey production in Alberta. It will also be used to generate some price and management related data and information. Beekeepers are asked to take a few moments and complete the questionnaire sent out by Alberta Agriculture, Food and Rural Development. Surveys should be returned as soon as possible, and by January 31, 2000, at the latest. The survey also has a space provided for beekeepers to write in questions or concerns. For further information, or if you are a beekeeper and did not receive a copy of the questionnaire, contact Reynold Jaipaul, livestock statistician with Alberta Agriculture, at (780) 427-5376 or e-mail <**reynold.jaipaul@agric.gov.ab.ca**>.

Banff Pork Seminar 2000

Beyond 2000 - Challenges & Opportunities is the theme of the January 18 to 21, 2000 Banff Pork Seminar, being held at the Banff Centre for Conferences. Topics up for discussion are: who will be the Competition?; will antibiotics be used?; price discovery and industry integration; optimizing genetics in the new century; and, refuting misinformation on pork and human health. An international panel of speakers is scheduled and these include:

Ty Lund, Minister of Alberta Agriculture, Food and Rural Development; Raoul Baxter, vice-president of Smithfield Foods, Virginia, U.S.; Keith Thornton, consultant from Bristol, United Kingdom; Dennis DiPietre, economist with E-Markets, Indiana, U.S.; John Webb, geneticist from Cotswold Pig Development Co. Ltd., United Kingdom; and, Bob Morrison, director of the Canadian Food Inspection Agency, Ottawa. Eight workshops and breakout sessions round out the four-day seminar. Early registration is $180 per person before December 17, 1999. After that date, registration is $230 per person. For more information or to register, contact the Banff Pork Seminar Office, (780) 492-3236, fax (780) 492-9130 or e-mail <**bps@afns.ualberta.ca**>. Information can also be accessed on the internet at <**http://www.afns.ualberta.ca/bps**>.

Agri-News

December 20, 1999

Don't be a Turkey about holiday food safety

"Last Christmas, some three dozen members of my extended family rented a lodge in the mountains for several days. It was a beautiful setting. The lodge contained a kitchen facility, and we took food to prepare our own meals. We thought we'd have a great time. We were doomed," says Linda St. Onge, nutritionist and food safety specialist with Alberta Agriculture, Food and Rural Development Leduc.

"The holiday was spoiled by a severe case of illness. Christmas morning had us piling 12 of the children into vans for a half-hour trip to the closest hospital. That triggered a visit from the health inspector, who spent his own Christmas afternoon at the lodge, interviewing those who were not too sick and taking samples of various foods for lab analysis. Christmas feast for many family members consisted of juice and soup."

While it couldn't be narrowed down to any one cause, experienced eyes would have been able to see several food-handling practices that do cause foodborne illness. Here are some of the things to watch for while preparing your holiday feast:

1. Make sure the refrigerator is set to the right temperature. Especially when loading it with a lot of food, it can take quite a while to reach cold enough temperatures again. Depending on how long that takes, there could be enough time for bacteria to grow in foods like prepared casseroles, dairy foods, or raw meat.

   If space in the fridge becomes a concern, try "extending" the refrigerator capacity by using insulated coolers and leaving them outside. When it's cold out, some things might freeze, but that wouldn't matter for items like breads, cheeses, prepared casseroles, fruit pies, sausage, or bacon.

2. If the refrigerator is full, don't just leave the turkey out at room temperature to thaw. Put it in a well insulated cooler so that it remains at refrigerator temperatures while thawing.
3. The regular household range may not be adequate if there's a large group to prepare for. Juggling foods by trying to keep several things hot while others finish cooking can cause problems. If possible, use a microwave oven for some of the cooking and plan preparation times to make the 'stove crunch' less daunting.

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Alberta AGRICULTURE, FOOD AND RURAL DEVELOPMENT

4. On days when outside activities are planned, many families put on a pot of stew or chili. Do not let it remain on the stove keeping warm for many hours. The danger zone is between 4 degrees and 60 degrees Celsius (40 to 140 Fahrenheit.) That's when bacteria can still thrive. Either keep the food (chili, stew, casseroles) either very hot, or very cold. It may be safer to keep several smaller containers ready to be quickly warmed up than to have the whole pot simmering in the danger zone.
5. Often there are many people in and out of the kitchen preparing light meals or snacks during the holiday season. Sometimes foods aren't put away properly, or counters and cutting boards aren't cleaned properly before the next use. That can mean cross-contamination. Always keep cutting surfaces and utensils clean. The extra time it takes to wipe down a surface or wash and rinse a knife is negligible.
6. If dishes aren't done in a dishwasher, a tip for washing dishes by hands is to pour boiling water over the dishes and let them air dry. This is safer and more sanitary. It doesn't hurt to put them away before they're completely dry.
7. Be careful with the foods that stay out all day. For items like nuts, crackers, pretzels, cheese snacks, candy, cookies, raw vegetables, fruit and juice boxes, this is okay. However, cheese, meat, fish, vegetable dip and egg or dairy products should all be refrigerated.

"The bottom line for food safety is this: Keep food **cold,** below 4 degrees Celsius, **or hot** - above 60 degrees C, keep it **covered,** and prevent **cross-contamination** by keeping everything **clean**," says St. Onge. "A little diligence will ensure that you have a safe Christmas holiday."

Contact: *Linda St. Onge*
(780) 980-4873

The mare's tail

There have been some fascinating developments in genetic tracking that lends credence to the age-old theory of the "mare's tail". At the 2000 Alberta Horse Breeders and Owners Conference, Dr. Doug Antczak will make a presentation on The Maternal Grandsire Effect.

"Having Dr. Antczak make a presentation here in Alberta on this leading-edge genetic study and presenting the information he has amassed over years of research, is thrilling," says Les Burwash, head of equine programs with Alberta Agriculture, Food and Rural Development, Airdrie. "Horsemen and women have for years referred colloquially to the mare's tail. Dr. Antczak will tell conference attendees why greatness sometimes skips a generation, and why those 'great' attributes are often manifest only in the get of the female offspring."

Using several horses of renowned record, such as Secretariat (thoroughbred racing), Albatross (harness racing), Gay Bar King (cutting horse and halter competition) and Longview Supreme (Saddlebred fine-harness competition) as examples, Antczak will show how the maternal-grandsire effect has baffled breeders and geneticists alike.

"Dr. Antczak will discuss the new Horse Genome Project that is working to create a gene map of the horse," says Burwash. "Researchers have determined that some genes are imprinted, meaning that some genes, while present, may not be active (turned on) if stemming from the sire and other genes may be inactive although present if they are provided by the dam. Part of the project focus is to identify the genes that determine the maternal-grandsire effect and determine whether or not those genes are genomicly imprinted or sex-linked."

This promises to be a very interesting presentation that breeders of performance horses in particular will find intriguing. It is one of the key sessions at the 2000 Alberta Horse Breeders and Owners conference being held at the Capri Centre in Red Deer on January 7 to 9, 2000.

"The sport horse industry in Alberta is growing and Alberta-bred horses are making their mark in a variety of disciplines; dressage, endurance racing, hunter jumper, roping, barrel racing and thoroughbred racing," adds Burwash. "This conference is an opportunity for horse enthusiasts to meet, share information and listen to some exceptional presentations of benefit to breeders, competitors and owners alike."

The 2000 conference features 13 internationally recognized speakers delivering a variety of presentations. The event is arranged so that attendees can follow four streams of interest – Arabian, Quarter Horse, Thoroughbred and all breeds. While many follow the program designed for a particular breed preference, conference participants can attend any of the sessions and will receive the printed materials from all sessions.

Conference registration is $75 per person. For more information, contact the horse industry branch in Airdrie at (403) 948-8533, or in Edmonton at (780) 415-6107. Government numbers are toll free by dialing 310-0000 first.

Contact: *Les Burwash*
(403) 948-8538

Alfalfa and forage seed conference

The ***2000 Canadian Alfalfa and Forage Seed Conference*** will be held in the Fantasyland Hotel, West Edmonton Mall, Edmonton, on January 20 to 22, 2000. The conference is an annual event held in Saskatchewan, Manitoba and Alberta, on a rotating basis each year.

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"There has been a tremendous increase in interest in forage seed production by Western Canadian producers the past few years," says Calvin Yoder, forage specialist with Alberta Agriculture, Food and Rural Development, Spirit River. "There is also more contracting and marketing opportunities with seed companies, especially in the turf grasses such as perennial rye and tall fescue. This conference is organized to bring seed companies, agribusinesses, producers, researchers and extension personnel involved in forage seed production together to discuss some of the latest opportunities and production information in both alfalfa and grass seed production. The conference will certainly be of interest to those who are currently growing forage seed or those just starting to get into production."

The first day of sessions, opens with keynote speaker, John Murphy, vice-president of Agriculture and Agri-Business Financing with the Royal Bank of Canada. His talk is entitled ***The Big Picture – What's in store for Agriculture***. According to Murphy, seeing your farm from a world perspective is critical in the highly competitive free trading world of agri-food business. Other items scheduled the first day include discussions on forage seed market updates and a panel discussion on field equipment for weed control in seed fields, row sprayers, wick applicators, spot spraying and nozzle types for field sprayers.

"Participants will hear forage seed production updates from some of the main producing areas of Western Canada, the USA Pacific Northwest and Europe," adds Yoder. "We are very pleased to have Ben Simko and Bill Young III from Oregon at the conference. Simko is an extension agent involved in alfalfa seed production extension and research. He will provide an update on the alfalfa seed situation in the U.S. and make a presentation on IPM in alfalfa seed production. Young works at Oregon State University as a seed production specialist. He is very active in the grass seed industry in Oregon and will provide an update on the grass seed situation in Oregon as well as an update on some of the latest grass seed research from Oregon."

Two concurrent sessions run throughout the second day; one session on alfalfa seed production/pollination and the other on grass seed production. The session on alfalfa seed production will address areas such as integrated pest management, parasite control in leafcutter bees, Canadian Cocoon Testing Centre Report, alfalfa variety developments, diseases and fungicides in alfalfa seed crops, insect control and an update on research in Canada thistle control in alfalfa seed crops.

The grass seed session covers topics that include end use and quality issues for turf, forage and native seed production, research update from Oregon on residue management, plant growth regulators and nitrogen fertility on grasses, utilizing grass seed straw for feed, endophytes in grass seed crops and weed control in grasses. There will also be research updates on ryegrass production, silvertip in grasses, nitrogen fertilizer on tall and creeping red fescue.

"There are not many opportunities for Alberta producers to attend this type of conference," says Yoder.

Brochures are available by contacting Donna Skoworodko or Yoder at (780) 864-3597.

Contact: *Calvin Yoder*
(780) 864-3597

Aquaculture in Alberta

In 1995 in Alberta, approximately 300,000 pounds of table fish were sold for human consumption and 2,508,652 fish were sold for stocking of water bodies. Farm gate sales of table fish totalled $824,725. Fingerling sales reached $869,248; while U-fish operations made $188,145.

Forecasts for the future of the Alberta aquaculture industry suggest that by the year 2000, 1,347,091 pounds of fish will be produced. Revenues from aquaculture could reach $8,454,098.

"Rainbow trout makes up the majority of Alberta production and sales," says Eric Hutchings, aquaculture biologist with Alberta Agriculture, Food and Rural Development, Lethbridge. "Other species presently being farmed include: brook trout, tilapia, goldfish, koi and Arctic char."

The main types of fish enterprises in Alberta are:

- **Fingerling Sales** – These operations use intensive production systems to produce fingerlings for sale to other commercial fish farmers, for stocking of public water bodies and for stocking of private ponds & dugouts.
- **Grow out** – These operations grow fingerlings to table-market size for food. Both extensive and intensive production processes are used, depending on the scale of operation.
- **U-fish** – These operations stock their ponds with fingerlings to produce catchable sized fish. Clients harvest the fish and pay for the fish harvested or for the opportunity to fish.
- **Hobbyist/Personal** – These operators stock their personal ponds or dugouts for recreation. Reasons can include personal enjoyment, pet fancy, weed control, or aesthetic quality.

"Intensive aquaculture uses controlled environments as well as prepared feeds to produce marketable fish on a year-round basis," says Hutchings. "Extensive operations use dugouts or ponds and usually rely on natural food sources to feed fish. These are outdoors, on a seasonal basis."

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Intensive aquaculture and extensive aquaculture are very different business enterprises. An intensive operation will require year-round markets, high capital investment and high levels of production management. Individuals seeking to develop a commercial aquaculture enterprise are likely to develop an intensive operation.

An extensive aquaculture enterprise can be developed with seasonal markets, limited capital investment and limited management. Individuals looking to use an existing dugout to generate supplemental income or to pursue a hobby are likely to develop extensive enterprises.

"Fish farmers who are producing fish for a particular market must be prepared to spend time researching their markets, identifying customer needs and developing marketing strategies," adds Hutchings. "New entrants must be prepared to perform a large number of marketing and advertising activities to introduce their product to consumers, retailers and processors."

To learn more about the aquaculture industry from Eric Hutchings – where opportunities lie or where they don't, plan on attending the **Alternative Livestock Symposium** being held on January 26 in Westlock. Other industries being addressed include bison, deer and elk. For more information or to register, contact Kerry Engel at (780) 349-4465.

Contact: Eric Hutchings
(403) 381-5574

Kerry Engel
(780) 349-4465

Something for everyone this winter

The rural development specialists-business with Alberta Agriculture Food and Rural Development offer high quality programs and seminars on a regional basis throughout the province.

Kerry Engel, rural development specialists-business with Alberta Agriculture in Westlock has information on several programs being offered in northwestern Alberta in the new year, including the following:

Looking for Alternatives?

The ***Alternative Livestock Symposium*** will be held on January 26, 2000 at the Westlock Community Hall. This is a full day conference aimed at Albertans investigating diversification into: bison, elk, deer and fish. It costs $45 per person.

Feeling Organic?

A workshop on ***Organic Production and Markets*** will be held March 8, 2000 at the Westlock Memorial Hall. Feasibility and market opportunities will be discussed, there will also be a producer/retailer panel. This workshop costs $25 per person.

Looking for new Markets?

Finding New Markets & Partners for Your Meat Products in Food Service is for pork, bison, poultry, beef, lamb or fish producers. This program starts January 18, 2000, from 1:00 to 4:00 p.m. in Westlock and January 18 from 7:00 to 10:00 p.m. in Athabasca and continues for eight consecutive Tuesdays. The costs is $100 per farm unit. During this eight-week program, attendees will:

- discover what the food service customer really wants and how to fill their needs
- identify niche markets in food service
- meet key contacts and players in the food service industry
- learn how to access the food service markets
- receive individualized coaching in the preparation of a marketing plan
- develop strategies to assess challenges and obstacles

Is there a tourist in your future?

Marketing Your Agri-tourism Business will be held January 20, 2000 at Fort Edmonton Park. This is a full day marketing workshop for Agri-Tourism operators, such as U-pick, Market Gardens and Farmers' Market.

The Rural Tourism – Accommodation Workshop is a one-day workshop focusing on the many issues facing farms offering overnight accommodations, for example: Bed & Breakfast, Country Vacations or Farm Stays. It is being held on February 23, 2000 in Stony Plain.

For further information on any of these programs or to pre-register, contact Kerry Engel at (780) 349-4465 for information.

Contact: Kerry Engel
(780) 349-4465

November temperatures well above normal

With average temperatures almost four degrees warmer than usual, Alberta experienced a very balmy November.

"The provincial average temperature of -1.0 degrees C was 3.6 degrees above the 1961 to 1990 normal," says Peter Dzikowski, agriculture weather resource specialist with Alberta Agriculture, Food and Rural Development. "Temperatures in Alberta have been near to above normal for the past three months with all Alberta stations reporting above normal temperatures for November."

The southern region reported the greatest temperature departure in November, with an average temperature of 2.8 degrees C, or 4.9 degrees above normal. Based on

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comparison with long-term records, temperatures in the southern region can be expected to be this warm about once every 15 years.

The provincial average precipitation of 17.4 mm was 87 per cent of the 1961 to 1990 normal of 20.0 mm.

"Precipitation totals were near normal in the southern, northwest and Peace regions," says Dzikowski. "The central and northeast regions reported below normal precipitation. Near to below normal precipitation totals have been the norm in Alberta for the past four months."

Bow Valley reported the greatest precipitation departure, 42.3 mm or 190 per cent of normal. On the dry side, Coronation reported only 0.2 mm of precipitation, about one per cent of normal.

The provincial averages are based on Environment Canada data recorded at 56 locations across Alberta.

For more information, visit Alberta Agriculture's internet site at <**http://www.agric.gov.ab.ca**>.

Contact: Peter Dzikowski
(780) 427-3594

Agri-News Briefs

Raising fish in your pond or dugout

Alberta Fish Farmers Association in cooperation with Alberta Agriculture, Food and Rural Development are offering a course for anyone interested in raising fish for recreational purposes. The course provides an overview of requirements for raising fish, such as selecting and constructing a pond, licencing requirements, purchasing fish and supplies, feeding, water quality, aeration, and disease, predator and weed control. Beginning in January 2000, the course will be offered at:

Stony Plain	January 25	6:30 p.m.
Barrhead	January 26	6:30 p.m.
Coronation	February 23	6:30 p.m.
Grande Prairie	February 9	1:00 p.m.
Peace River	February 10	12:30 p.m.
Valleyview	February 10	6:30 p.m.
Smoky Lake	February 15	6:30 p.m.
Lac La Biche	February 16	6:30 p.m.
Wainwright	February 17	1:00 p.m.
Red Deer	February 22	6:30 p.m.
Morinville	January 27	6:30 p.m.
Drumheller	February 24	1:00 p.m.
Strathmore	February 29	6:30 p.m.
Medicine Hat	March 1	6:30 p.m.
Taber	March 2	1:00 p.m.

Attendance is limited by seating capacity. Cost of the course is $25 (includes GST). A manual is provided to registrants and contains additional materials not covered in class. For further information, or to register, contact Eric Hutchings, aquaculture biologist with Alberta Agriculture, Lethbridge, (403) 381-5574. Government numbers are toll free by dialing 310-0000 first.

2000 berry production school

The 14th annual Commercial Berry Production School, sponsored by the Alberta Market Gardeners Association (AMGA), is scheduled for January 25 and 26, 2000 at the Sandman Inn, Edmonton. The School will focus on direct market berry crops. Basic information will include farm set-up, customer expectations, site selection, signage, equipment suppliers and information sources. Detailed information will also be provided on each crop, including varieties, plant requirements, spacing, irrigation, fertility, and the latest pest and weed control recommendations. Strawberries, raspberries and saskatoon berries will be specifically discussed. Pre-registration for both days is $65 per person for AMGA members and $90 per person for non-members. Registration at the door for both days is $80 per person for AMGA members and $110 per person for non-members. Rates for single day attendance are also available. For further information, contact the AMGA at (403) 362-1309.

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